VOLUME LIII NUMBER TWO

THE NATIONAL GEOGRAPHIC MAGAZINE

FEBRUARY, 1928

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TO carry out the purposes for which it was founded forty years ago the National Geographic Society publishes this Magazine. All receipts are invested in the Magazine itself or expended directly to promote geographic knowledge.

ARTICLES and photographs are desired. For material which the Magazine can use, generous remuneration is made. Contributions should be accompanied by an addressed return envelope and postage.

IMMEDIATELY after the terrific eruption of the world's largest crater, Mt. Katmai, in Alaska, a National Geographic Society expedition was sent to make observations of this remarkable phenomenon. Four expeditions have followed and the extraordinary scientific data resulting given to the world. In this vicinity an eighth wonder of the world was discovered and explored—"The Valley of Ten Thousand Smokes," a vast area of steaming, spouting fissures. As a result of The Society's discoveries this area has been created a National Monument by proclamation of the President of the United States.

AT an expense of over $50,000 The Society sent a notable series of expeditions into Peru to investigate the traces of the Inca race. Their discoveries form a large share of our knowledge of a civilization waning when Pizarro first set foot in Peru.

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NOT long ago The Society granted $25,000, and in addition $75,000 was given by individual members to the Government when the congressional appropriation for the purpose was insufficient, and the finest of the giant sequoia trees of California were thereby saved for the American people.

THE Society is conducting extensive explorations and excavations in northwestern New Mexico, which was one of the most densely populated areas in North America before Columbus came, a region where prehistoric peoples lived in vast communal dwellings and whose customs, ceremonies, and name have been engulfed in an oblivion.

TO further the important study of solar radiation in relation to long-range weather forecastings, The Society has appropriated $60,000 to enable the Smithsonian Institution to establish a station for four years on Mt. Brukkaros, in Southwest Africa.

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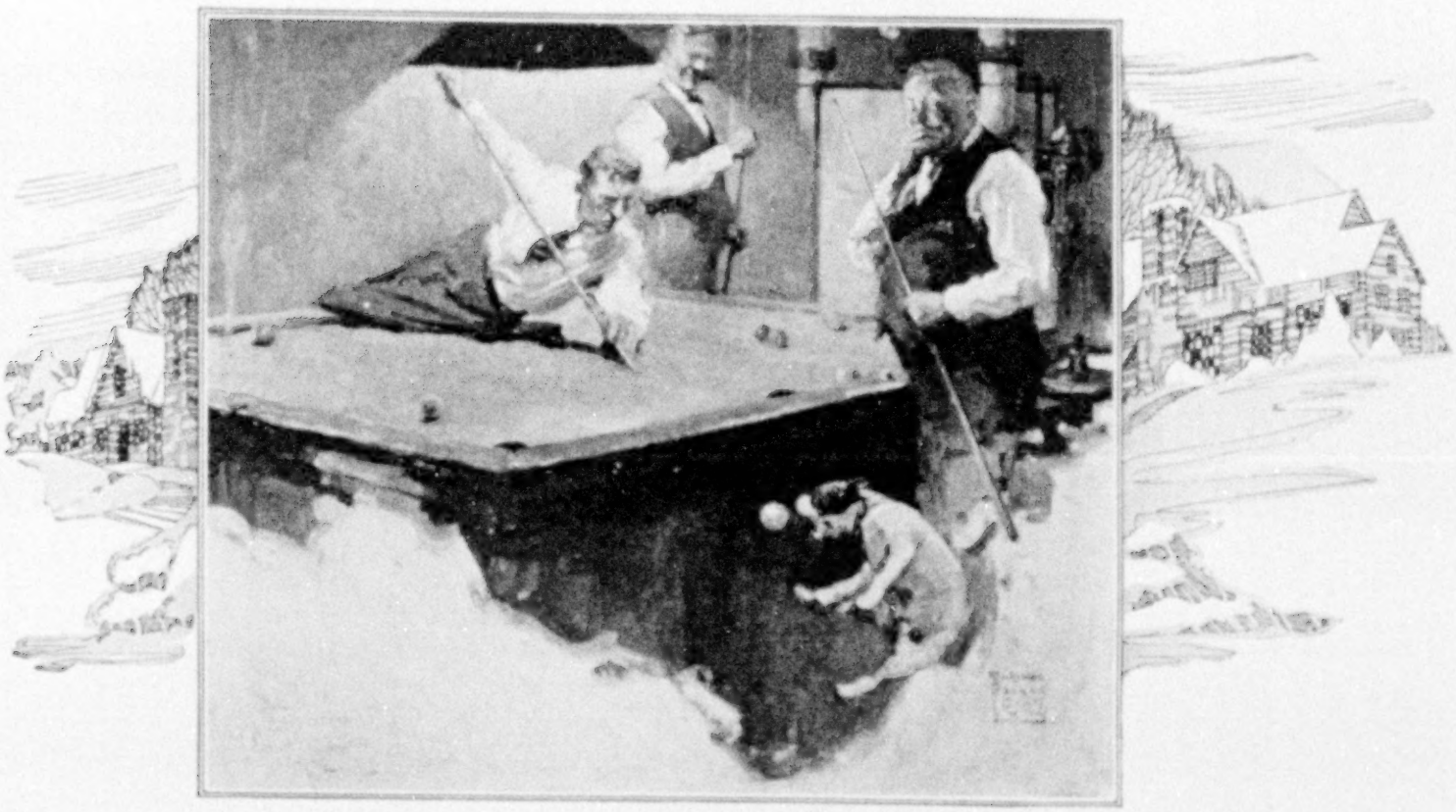

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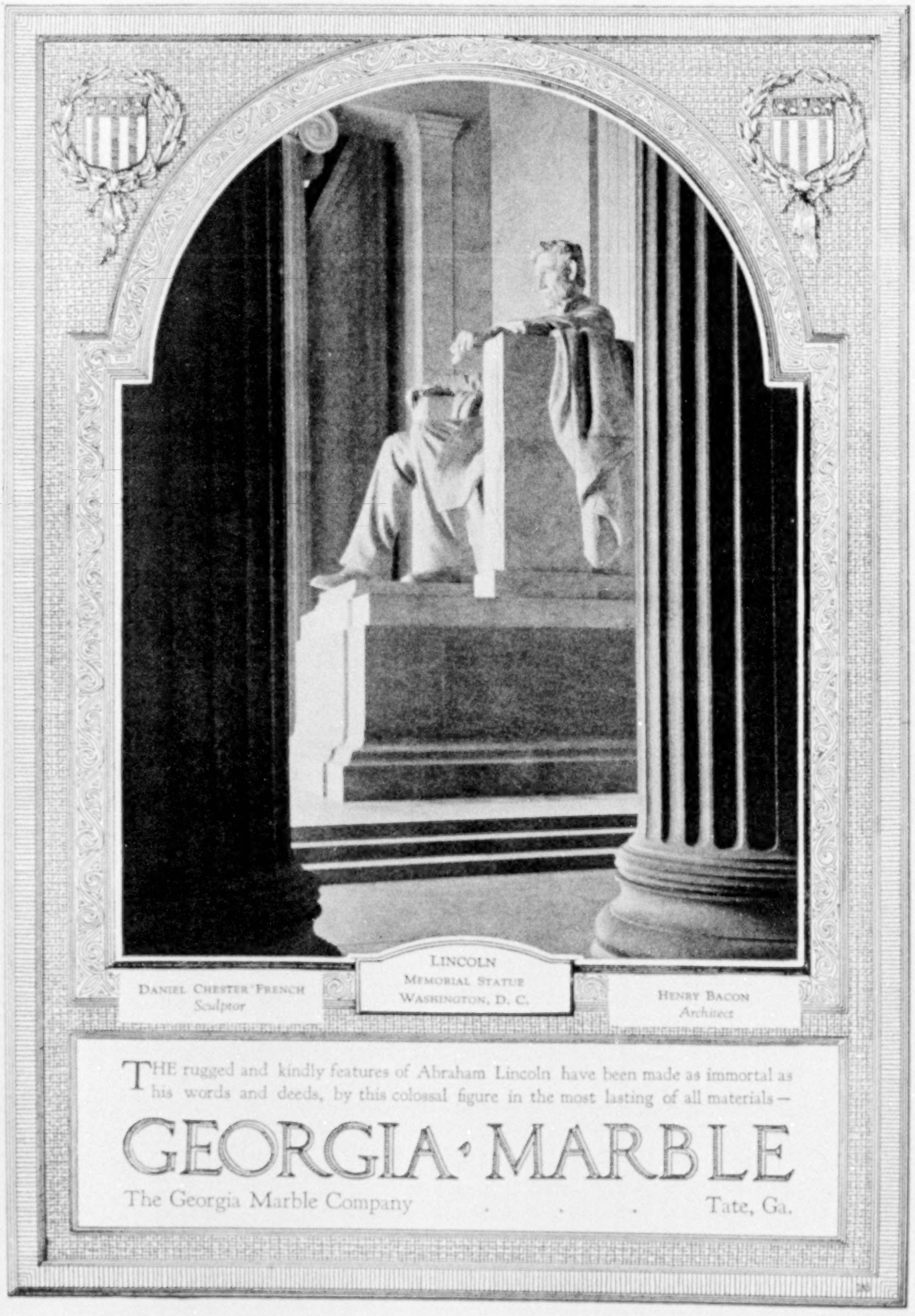

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A man stepped up to the watch counter and addressed the clerk.

"I see you are advertising *Elgin* watches at special prices," he said, exhibiting a large display ad, torn from the morning paper. "I'd like to look at them."

"Certainly," replied the clerk, smiling cordially. "But before you look at the Elgins, I have something very special here I'd like to show you.

"You know," continued the clerk with a confidential air, "we don't always advertise our best bargains. You came in just at the right time.

"For here's a new lot of very choice watches . . . elegant values . . . which will certainly give you a thrill. Look at this one . . ." And so forth.

Fortunately, the merchant who baits his trade by advertising fictitious sales of well-known American products is not so numerous as he was. But he still exists. So in public interest, as well as in behalf of the reputable jewelers of America, we are publishing this page to let in a little light on his methods.

His plan is simple. He picks out some nationally respected product like the Elgin watch and advertises it at a price on which he could not possibly make a profit.

Customers calling to buy these Elgins are induced by high pressure salesmanship to switch to a watch of uncertain parentage and one that pays this jeweler an abnormal profit. This dealer seldom intends to really make good on his special Elgin price, unless absolutely forced to. He simply uses a fine old American name in connection with "bait price" to bring you to his store.

. . .

As we said, there are not many of these black sheep in the jewelry fold today. For the American jeweler has done more than his share to pioneer the high-planed policies of fair and honorable dealing that now dominate American business.

But still, he will get in, here and there. And to help the jewelers of America get rid of him, or to persuade him to change his methods, we are publishing this page.

His conversion is up to you . . . the buyer. And the help you can give, while very simple, is greatly in your own interest.

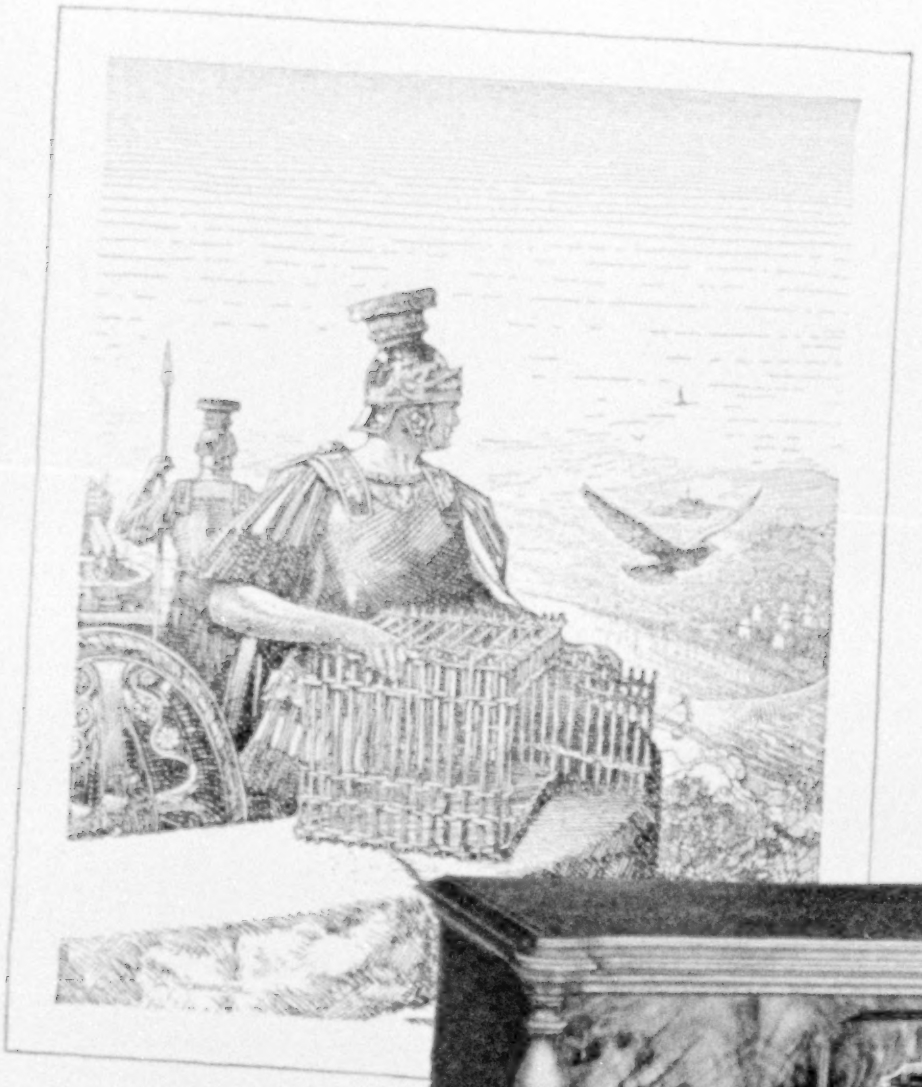
. . .

IT IS JUST THIS: *Beware of the man who advertises a well-known product (at cut price) and then tries to switch you over to something else, of unknown parentage.*

ELGIN NATIONAL WATCH COMPANY

ELGIN, ILLINOIS, U. S. A.

© Elgin, 1928



To prevent communication with the outside world, Antony closely surrounded the city of Modena with his army and stretched nets across the river. Brutus, in charge of the defense, easily thwarted these measures by the simple expedient of fastening letters to the feet of carrier pigeons.

Doctor Who

Surmounting Barriers—Neither winter snows, nor impassable roads, nor sickness itself can bar you from contact with world events. Whatever the reason for your isolation, a Grebe Synchrophase Seven bridges the gap, bringing you concerts, sermons, lectures, music, sporting events, in such clear, full, life-like fashion that you are one of the audience. You forget it's radio.

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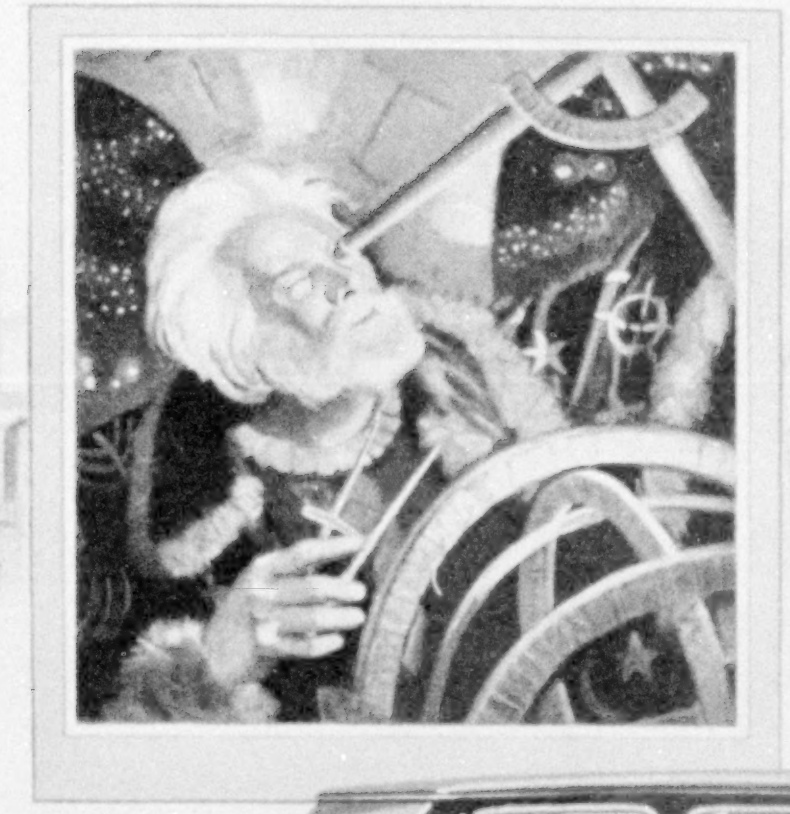
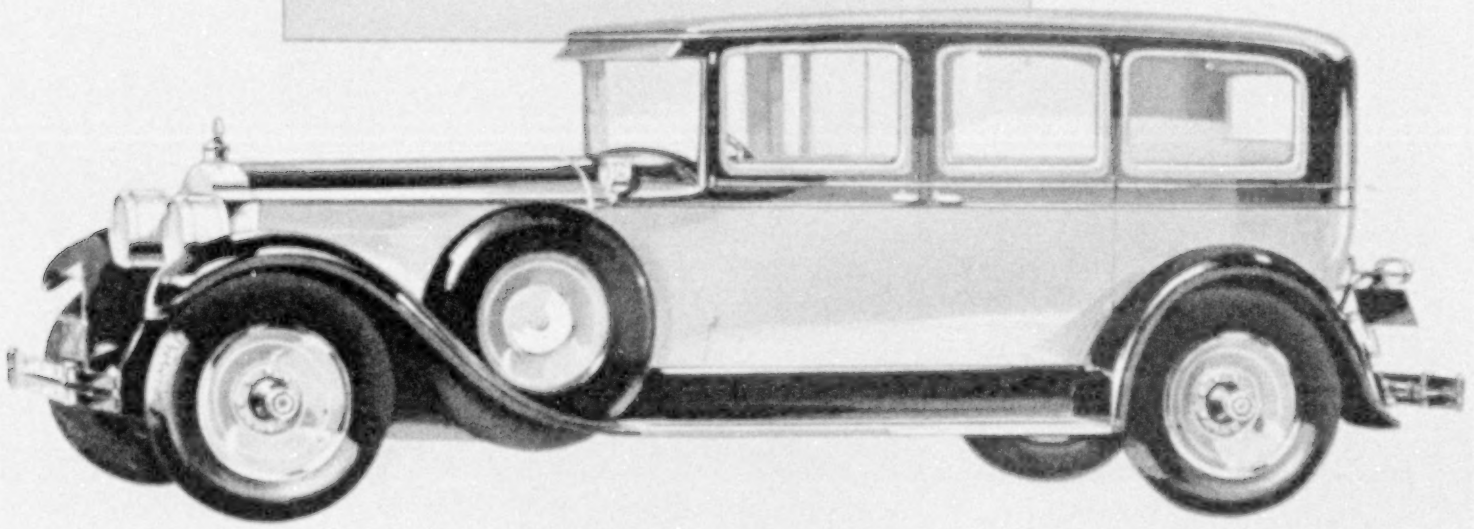


Early in the 17th Century Galileo pioneered modern astronomy and the measurement of interstellar space.



THROUGH the ages men have sought means to avoid the errors of human senses. And little by little science has learned how to replace guesswork by exactness.

Today we may measure the vast distances between the stars and the minute length of light vibrations. Actual measurements as fine as one millionth of an inch are made easily with the light wave equipment in daily use at the Packard factory. The gauges by which many Packard parts are made to fit within one ten-thousandth of an inch must themselves be constantly checked for still finer accuracy.

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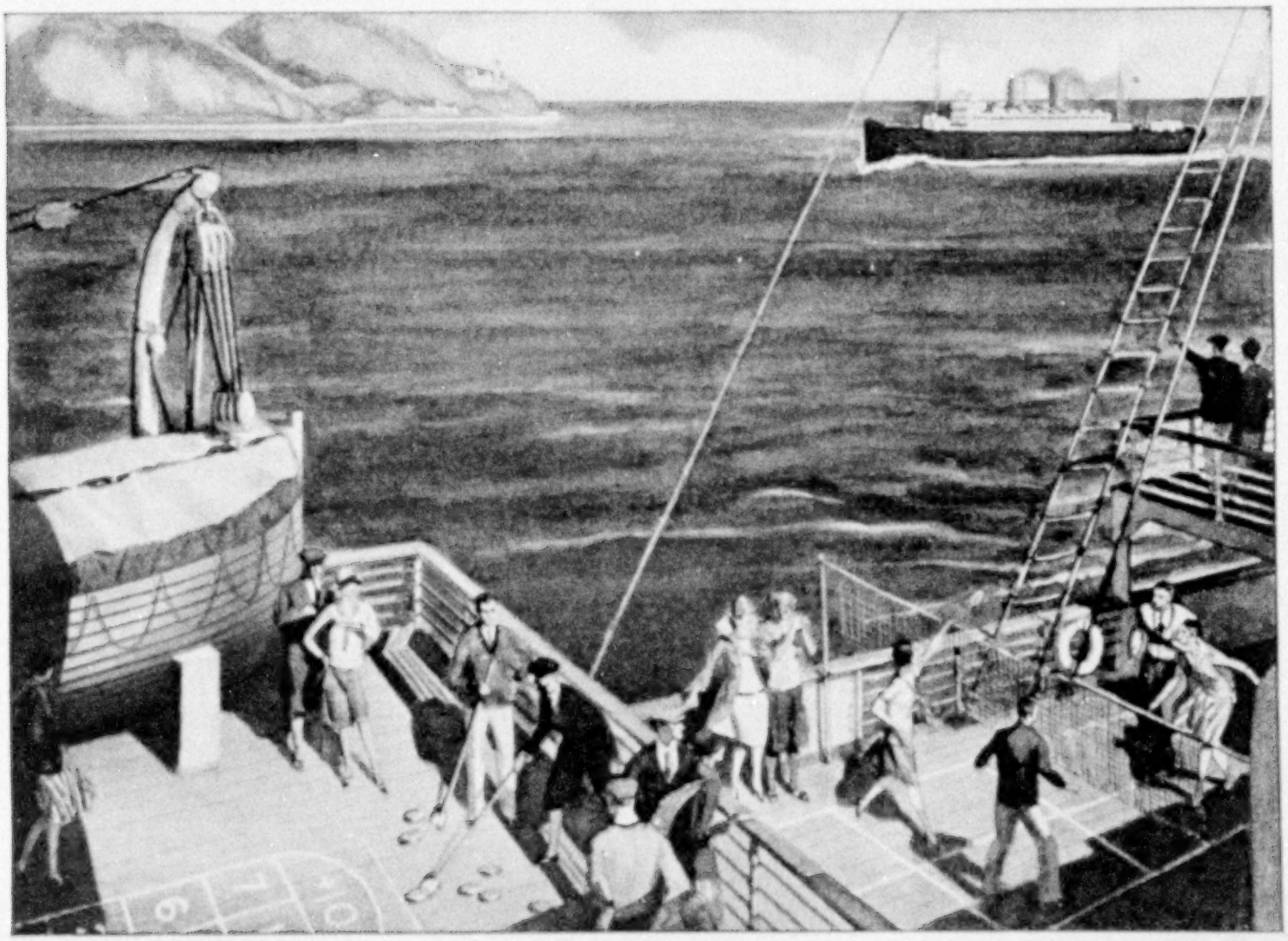

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Upon the 160th anniversary of the founding of the Encyclopaedia Britannica, accept my best wishes for a fitting and inspiring celebration. It is indeed an event of marked significance in the cause of education and culture.

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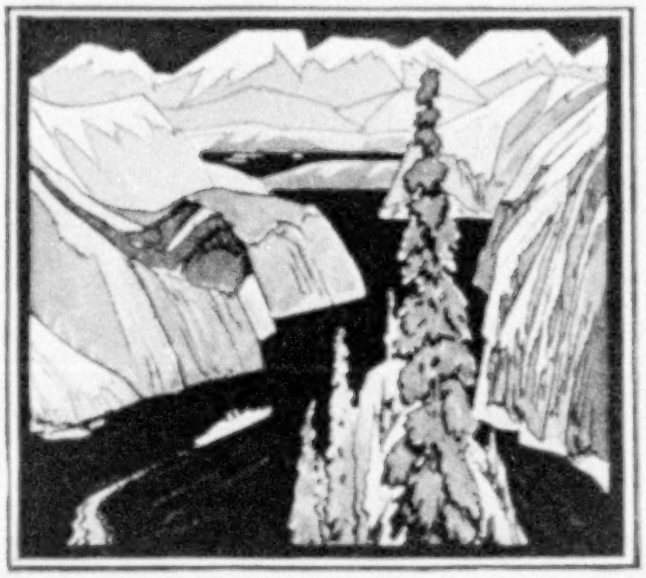

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Are your trees worth saving?

Davey Tree Surgeons will not treat any tree for you that in their judgment is too far gone. The reason for this is obvious to them, but you with your untrained eyes must depend on their professional honor.

Davey Tree Surgeons will not give complete treatment to any tree for you that is in questionable condition. Such a case receives first aid treatment until the results indicate whether a larger investment is warranted.

Davey Tree Surgeons will give nothing but first aid treatment to a tree that is starving. Such a tree is properly fed and cared for until its vitality is built up. There are many trees that are starving under semi-artificial or lawn conditions.

Davey Tree Surgeons will do only that kind and quantity of work that they believe will represent real value to you. Many clients urge them to break this rule by treatment of a hopeless case. The client argues, "It is my money that is paying for it." They answer, "Yes, but our reputation is at stake."

Davey Tree Surgeons live and work in your vicinity; they are quickly available for large or small operations. No car fare is charged; you pay only for working time and the necessary materials and expressage. Write or wire Kent, Ohio, or the nearest office.

Among prominent persons and institutions served by the Davey Tree Surgeons are the following:

MRS. THOMAS A. EDISON
ANTIOCH COLLEGE
ATWATER KENT MANUFACTURING CO.
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JOHN DAVEY
1846-1923
Father of Tree Surgery
Reg. U. S. Pat. Office

THE DAVEY TREE EXPERT CO., Inc., 923 City Bank Bldg., Kent, Ohio

Branch offices with telephones: New York, 501 Fifth Ave., Phone Murray Hill 1889; Albany, City Savings Bank Bldg.; Rochester, Builder's Exchange; Boston, 705 Statler Bldg.; Pittsfield, Mass., Stevenson Bldg.; Providence, R. I., 38 Exchange Pl.; Philadelphia, Land Title Bldg.; Baltimore, American Bldg.; Washington, Investment Bldg.; Pittsburgh, 331 Fourth Ave.; Buffalo, 110 Franklin St.; Cleveland, Hippodrome Bldg.; Columbus, 30 N. Washington St.; Toledo, 429 Nicholas Bldg.; Detroit, General Motors Bldg.; Grand Rapids, Michigan Trust Bldg.; Cincinnati, Mercantile Library Bldg.; Louisville, Todd Bldg.; Charlotte, N. C., 1008 First National Bank Bldg.; Indianapolis, Fletcher Savings & Trust Bldg.; Chicago, Westminster Bldg.; St. Louis, Arcade Bldg.; Kansas City, Scarritt Bldg.; Minneapolis, Andrus Bldg.; Montreal, Insurance Exchange Bldg.; Toronto, 71 King St., West; Stamford, Conn., Gurley Bldg.; Hartford, Conn., 36 Pearl St.; Memphis, 734 Exchange Bldg.

Send for local representative to examine your trees without cost or obligation

DAVEY TREE SURGEONS

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Offers Courses for Home Study in the following Subjects

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Dramatic, Elementary English, College, French, Italian, Latin Prose, Lyric Poetry, Public Speech, Spanish
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THESE courses have been prepared by our instructors to meet the special requirements of study at home by individuals or groups. While all basic material essential to the full understanding of each subject is fully covered, sufficient elasticity is allowed to permit adaptation to the individual needs of each student. Everyone who enrolls for a Columbia course is personally instructed by a member of the University teaching staff.

The University will send on request full information about these home study courses. A coupon is printed below for your convenience. If you care to write a letter briefly outlining your educational interests our instructors may be able to offer helpful suggestions. Mention subjects which are of interest to you, even if they are not listed here because additions to the courses offered are made from time to time.

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COLUMBIA University Home Study Department has prepared courses covering the equivalent of four years of High School study. This complete High School or College Preparatory training is available to those who cannot undertake class room work. We shall be glad to send you our special Bulletin.

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A young American displaying fine qualities, innate courage and daring, for the first time in history carried the National Emblem in the air from the New World to the Old. The modesty which endeared Colonel Lindbergh to Europe made him the ideal flag-bearer from one nation to all others, spreading the true American spirit. Travel abroad, is carrying the flag and winning friendship. Thos. Cook & Son have had 87 years experience in every detail of travel throughout the world. Cook's Organization is a practical and efficient body — with 100 offices operating in Europe alone.

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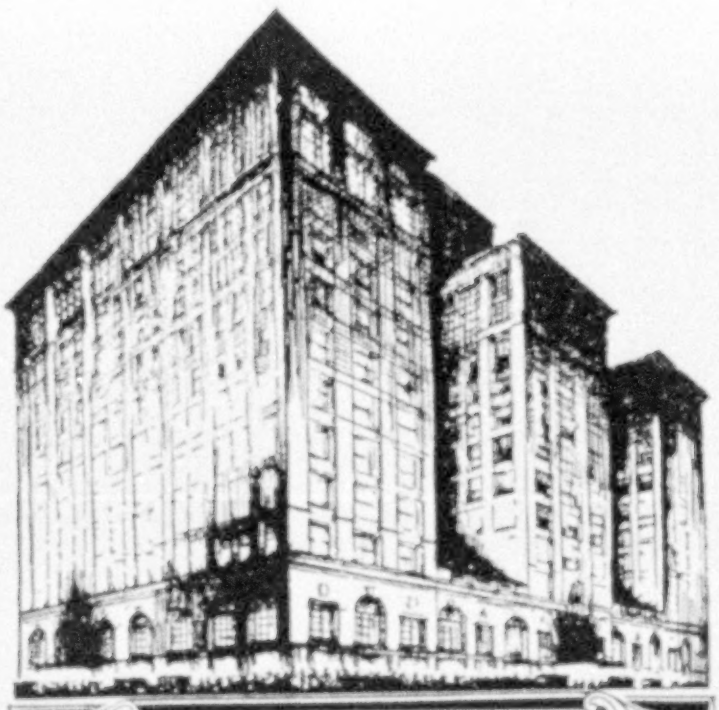


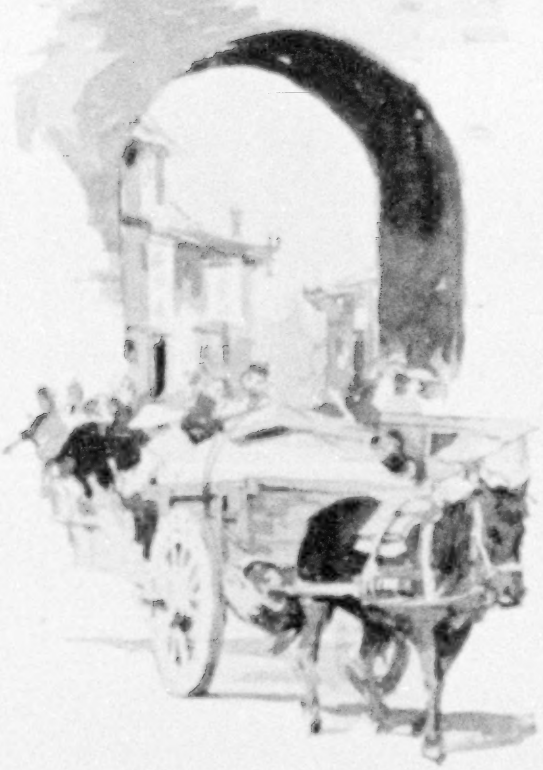
Welcome!

HOTEL CLEVELAND is a friendly place. Of course it has all the conveniences and refinements you properly expect of the most modern hotel in a city, but—what we believe is more important—it has a hearty, genuine welcome for every guest, and an honest desire to see to it that you have a comfortable, thoroughly enjoyable stay here.

* * *

Hotel Cleveland is convenient to all parts of the city. Every room with private bath. Servidor service; floor clerks. Room rates begin at $3.

HOTEL CLEVELAND



New INFORMATION *about taking and showing* your own movies

THIS page invites you to secure and read a new book that leads to more thrills than will be found in any "best seller." For it tells how to have *movies of your own*—movies in which *you* appear, golfing, riding, tobogganing—doing all the things you like best, any day in the year.

Travelers will find interesting news in these pages. If you plan taking a trip, learn how all the places, people and events you see can be brought back in living action, for life, *simply by touching a button.*

This book reveals to *fathers* and *mothers* how motion picture records of the children are made and kept. Baby's first year, the first smile, the first toddling steps—all the days and actions memory would treasure—are saved for all time in Filmo movies. Some future day a king's ransom could not buy them.

Learn, too, the interesting principles that make movies possible; how Bell & Howell professional cameras and equipment are used in making most of the motion pictures featured in best theatres; how this experience resulted in perfecting Filmo equipment for amateur use—a movie camera and projector that operate with professional *accuracy*, yet strictly amateur *ease*.

Simply look through the spy-glass viewfinder and press the button to take movies with Filmo Camera. Just two simple operations. Easier than taking snapshots. No focusing, no shutter adjustment, no winding film, no special skill of any kind required.

The film used in Filmo Camera is obtained at practically all stores handling cameras and supplies. It is Eastman Safety Film (16 mm.), in the yellow box. No extra charge is made for developing and returning it, postpaid, to you.

Then Filmo Projector brings back the movies you have taken. Or offers a wide variety of entertainment through Filmo Library films you may purchase or rent from any Filmo dealer.

This coupon brings our latest book, just off the press, telling the whole interesting movie story. Mark and mail it.

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There is also Eyemo, using Standard (35 mm.) film, for those wishing to commercialize their movies

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Please send, without obligation, your new Filmo booklet "Home Movies of the Better Kind."

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Instinctively she prefers the finest—and just as instinctively you know it. To the Rue de la Paix for her frocks and finery—nowhere else will do. Via White Star, Red Star or Atlantic Transport Line—no other ships quite meet her exacting scrutiny.

Their sophisticated atmosphere matches her sophistication. She finds impeccable service, a necessity to her well-being—a matchless cuisine offers the delectables to which she is accustomed. Efficient stewardesses take the place of her own maid.

She travels de luxe—or she travels not at all—and she may do so on the magnificent ships of the White Star, Red Star and Atlantic Transport Lines.

For complete information apply No. 1 Broadway, New York City, our offices elsewhere or authorized agents.

WHITE STAR LINE
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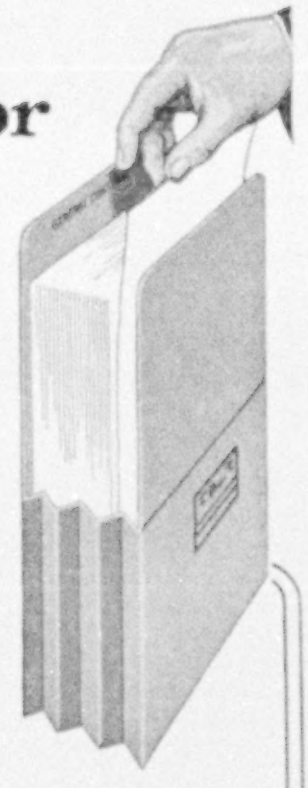
Do You JAM or DROP your letters in the pocket ?



If your files are equipped with ordinary flat folders, the chances are you have to use forceful filing methods. This results in torn letters, lost letters and crowded folders that make quick finding almost an impossibility.

A sure remedy for such an unsatisfactory condition is to be found in the use of "VERTEX" FILE POCKETS—firm, durable, expansible containers designed to expand as the papers increase, without losing any of their ability to stand upright with their index tabs in plain view.

Letters may be "dropped" in the file with the assurance that they will be held safely and neatly in their place until wanted. The contents of these efficient pockets are ready for quick, instant reference at all times, under all conditions.

To all users of vertical files we offer a free sample pocket, which we urge you to try in the place of an overcrowded folder. Use the coupon below.

—CUT HERE—

Please send me for trial in my files a free sample of Bushnell's Paperold "VERTEX" File Pocket, as described in February National Geographic.

Name of Firm .....

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Letter Size or Legal Size Desired? .....

To Alvah Bushnell Co., Dept. G
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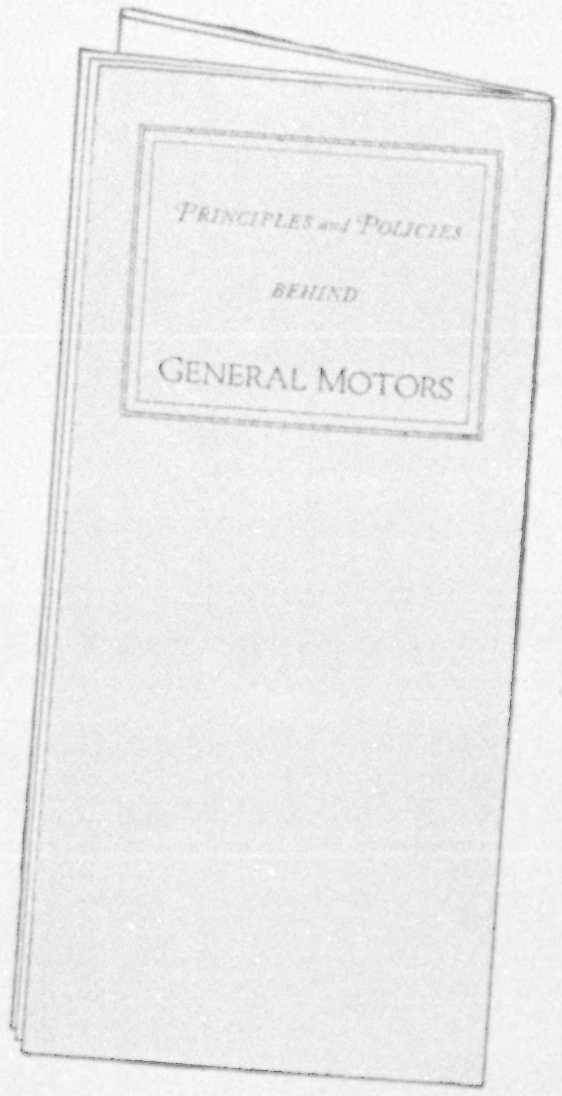
PRINCIPLES *and* POLICIES *behind* GENERAL MOTORS

"OUR PRINCIPLES completely expressed, as I see them—and they apply to every other business as much as they do to that of General Motors—are: Get the facts; recognize the equities of all concerned; realize the necessity of doing a better job every day; an open mind and hard work. The last is the most important of all. There is no short cut." . . . . . .

ALFRED P. SLOAN, JR.,
President of General Motors.



In addition to its Annual Report and Quarterly Statement of Earnings, it is the custom of General Motors to issue special booklets from time to time to keep informed its stockholders, employees, dealers and the public generally. Many of the principles and policies, outlined in these booklets, apply to every other business as much as they do to that of General Motors.

This booklet, "PRINCIPLES AND POLICIES BEHIND GENERAL MOTORS," together with the series of booklets to stockholders, will be mailed free, upon request to Department M-1, Room 2210, General Motors Corporation, Broadway at 57th St., New York, N. Y.

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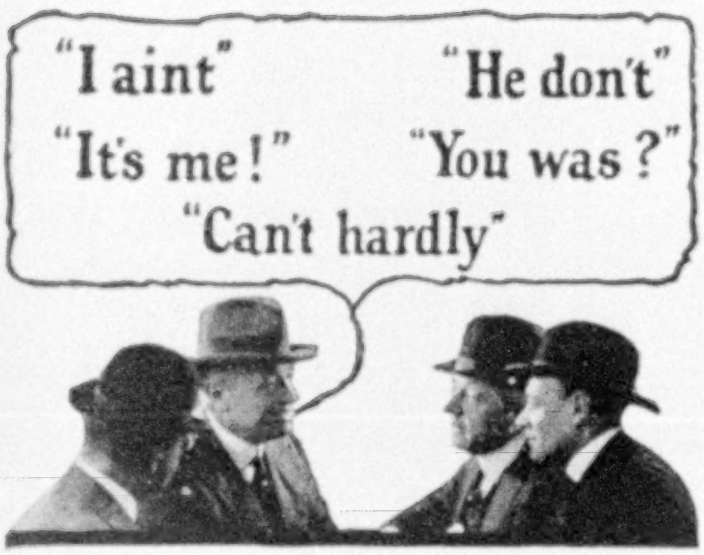

What Are YOUR Mistakes in English?

They may offend others as much as these offend you

IF some one you met for the first time made the mistakes in English shown above, what would you think of him? Would he inspire your respect? Would you be inclined to make a friend of him? Would you care to introduce him to others as a close friend of yours?

These errors are easy for you to see. Perhaps, however, you make different mistakes which offend other people as much as these would offend you. How do you know that you do not mispronounce certain words; are you always sure that the things you say and write are grammatically correct? To you they may seem correct, but others may know they are wrong.

Unfortunately, people will not correct you when you make mistakes; all they do is to make a mental reservation about you. "He is ignorant and uncultured," they think. So you really have no way of telling when your English offends others.

FREE Book on English

Sherwin Cody, perhaps the best known teacher of practical English, has perfected and patented a remarkable device which will quickly find and correct mistakes you unconsciously make. Correct English soon becomes a HABIT.

If you are efficient in English, it will give you greater confidence; if you are deficient, you surely want to know it, so that you can correct your mistakes.

Mr. Cody's remarkable new invention, the 100% Self-Correcting Method, has already improved the English of more than 50,000 people. No useless rules, no tedious copying, no hard study. Only 15 minutes a day required. You learn by creating the HABIT of using correct English. Nothing like Mr. Cody's method has ever been used before!

A new book, "How to Speak and Write Masterly English," is ready. It explains Mr. Cody's surprisingly easy method. Get a copy free and learn how to stop making embarrassing errors. You do not want others to judge you unfairly. Merely mail the coupon or a postal card. SHERWIN CODY SCHOOL OF ENGLISH, 382 Searle Building, Rochester, N. Y.

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THE same accommodations, service, and cuisine that made this ship so popular as a first class liner will be maintained on the *George Washington*, which is now the largest American Cabin ship. From New York to Plymouth, Cherbourg, and Bremen.

And a new service to the Mediterranean

The sister ships, *President Roosevelt* and *President Harding*, are maintaining a new American flag service this winter to Algiers (12 hour stop-over privilege), Naples, Genoa and return. First class rates from $253 up, one way.

To Europe, of course

Regular sailings by the famous United States Liners, *S. S. Leviathan*, *S. S. George Washington*, *S. S. Republic*, and *S. S. America*. The *S. S. America* has been entirely re-conditioned and will make her first sailing on March 21 to Plymouth, Cherbourg, and Bremen.

WRITE FOR NEW BOOKLET
ON TOURIST THIRD CABIN

See your nearest steamship agent for reservations, sailings, ports of call, or write—

United States Lines

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Seemingly safe with teeth so white

YET...

MANY, many people while in the heyday of life are relegated to the background — unwilling spectators who have surrendered health to Pyorrhea.

This grim enemy attacks the unwary. Although teeth may be glistening white, the gums break down. And Pyorrhea poison moves through the system often endangering health, youth and beauty. Its toll is 4 persons out of 5 after forty and thousands younger.

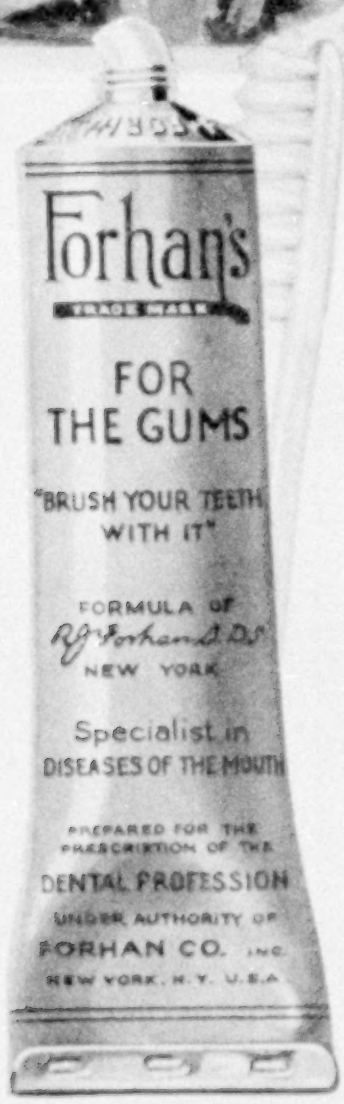
These odds are unfair. Because it is so easy to keep teeth clean, sound and healthy.

More Than A Toothpaste

Just follow this simple regime: See your dentist once every six months. Have him examine teeth and gums thoroughly. And start using Forhan's for the Gums, today.

Without the use of harsh abrasives, this dentifrice keeps teeth pearly white. It protects them against acids which cause decay. And, moreover, if used regularly and in time, it helps to firm gums and keep them sound. And as you may know, Pyorrhea seldom attacks healthy gums.

The formula of R. J. Forhan, D. D. S., this dentifrice is compounded with Forhan's Pyorrhea Liquid, the preparation used by dentists in the treatment of Pyorrheic conditions.



It is folly to wait for signals to flash, for gums to bleed and to recede from teeth, for teeth to loosen in their sockets. Prevention is the sensible course.

Morning and night, use Forhan's for the Gums. Teach your children this good habit. They'll like the pleasant taste of Forhan's. And it is the means of helping to safeguard health, beauty and youth. At all druggists—in tubes, 35c and 60c. Forhan Company, New York.

Formula of R. J. Forhan, D. D. S.

Make This 10 Day Test

Lazy, lethargic gums invite disease. And the only way to keep them firm, sound and healthy is to massage them daily just as a woman massages her face to keep it glowing with youth and free from the signs of age. Forhan's for the Gums is designed for gum massaging. Make this 10 day test. Morning and night, before brushing your teeth with Forhan's, exercise your gums, closely following the directions in the booklet that comes with each tube . . . See how much better they look and feel!

Your Teeth Are Only As Healthy As Your Gums

Forhan's *for the gums*

YOUR TEETH ARE ONLY AS HEALTHY AS YOUR GUMS

To Men "*From Missouri*" Let Us Show You

That what we claim for this unique shaving cream is based on scientific fact

10 Shaves FREE
Mail the Coupon

GENTLEMEN:

We like to make a booster of men with "the world's toughest beards" by proving that Palmolive Shaving Cream is quick, luxurious, and leaves the face feeling "like a million dollars."

For it isn't the ads that sell Palmolive Shaving Cream.

It's our policy of *giving* the first ten shaves free, to PROVE its supremacy.

And, second, the word-of-mouth advertising for it, as one man tells another—in clubs, in Pullmans, on the links.

Hundreds of thousands have made this free test

We say, *"Don't buy . . . yet"*—first let us *prove* our case. For we know the majority of men who make our test, thereafter stick to Palmolive Shaving Cream.

Sixty years of soap study stand behind it. Years were spent in our laboratories trying one formula after another, discarding them one by one. Success finally came after our 129th test.

Here are the five exclusive features we claim for Palmolive Shaving Cream. See if they are not what you've always sought for shaving comfort.

The ideal shaving cream

1. Multiplies itself in lather 250 times.
2. Softens the beard in one minute.
3. Maintains its creamy fullness for ten minutes on the face.
4. Strong bubbles hold the hairs erect for cutting.
5. Fine after-effects due to palm and olive oil content.

Now mail the coupon

We take the risk—not you. We undertake to please you . . . to win you in ten shaves. Give us the opportunity to prove our case. The coupon is for your convenience—to prevent your forgetting. Won't you use it, please?

THE PALMOLIVE-PEET COMPANY,
CHICAGO, ILL.

3854

10 SHAVES FREE

and a can of Palmolive After Shaving Talc

Simply insert your name and address and mail to Dept. B-1444, Palmolive, 3702 Iron Street, Chicago, Ill.
Residents of Wisconsin should address Palmolive, Milwaukee, Wis.

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(Please print your name and address)

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See Japan, a miracle of loveliness. China, her ancient cities. Manila, a bit of old Spain in a tropical setting. You touch at Yokohama, Kobe, Shanghai, Hong Kong, and Manila.

Here is a new vacation at small expense. Roundtrip fare to Manila via Japan and China as low as $750 per capita. (Include Honolulu if you choose.) First cabin accommodations and meals are included.

Or continue Round the World. Liberal stopovers at any port.

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An American Mail Liner sails every two weeks from Seattle for Japan, China and Manila.

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A feast for your eyes in the Coachella Valley

See this *amazing flame* of desert flowers

COME out this month—now—for here in this *different* Southern California there is something new to delight your eyes and refresh your soul. It is the desert's magic carpet, only a few miles distant from the golden orange groves that surround Los Angeles and its neighboring communities.

Out on this desert, where the gentle rains of Southern California's "winter" have worked their spell, verbenas, lupin, marguerites and scores of other flowers are springing into being, NOW. In a week or two, endless miles of color will be awaiting you. The Mojave, Coachella Valley, Palm Springs, Antelope Valley, the Imperial Valley—what a picture they have ready, framed by circling mountains, some of them snow-crowned!

And yet, this colorful desert is but one of Southern California's offerings. Here, right now, the outdoors is calling with every outdoor sport. Rest or play—but come to Los Angeles—now—while the desert is aflame with flowers! Phone today—or write—your nearest railroad ticket office for reservations.

Or, plan a vacation trip for next summer—*where rain will not interfere for a single hour!* At every turn, a picture unlike any other you've ever seen; always in anticipation, a thrilling, inspiring place to visit; and, at each glorious day's close, restful, energizing sleep under blankets, for Southern California's nights are cool and refreshing.

Los Angeles' growth and prosperity are astounding. Here is the Pacific Coast metropolis, and the key to all Southern California, to Hawaii and to the Orient. Los Angeles County's agricultural products alone last year were valued at approximately $95,000,000.

Send at once for our 52-page book on all-year vacations.

Southern California

"A trip abroad in your own America"

Learn to know your own Southern California as you should.

All-Year Club of Southern California, Dept. E-2, Chamber of Commerce Bldg., Los Angeles, California.

Please send me your free booklet about Southern California vacations. Also booklets telling especially of the attractions and opportunities in the counties which I have checked.

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THE Memorial Architect will tell you the importance of correct proportions in the plain monumental Tablet, as well as in the reproductions of ancient orders of architecture. Our original designs reflect a careful study of line and proportion. A Dodds-made tribute remains a thing of beauty for you and future generations to admire.

Below: Kerrigan Memorial Mausoleum, Westminster Cemetery, Philadelphia, Pa

At Left: The JACOBS Tribute illustrates the blended beauty of soft color tones in Stony Creek Granite.

Write for copy of "Modern Memorial Art" if interested.

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Michigan Avenue
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ESTABLISHED IN 1882

Wives of Business Men

THE difference between office and household economy often causes astonishment and confusion to business men. Their wives mean well, but as for method —!

The household budget is the answer. We have sent thousands of our budget sheets to wives who have attacked this problem.

If you, sir, care about ordered and reasonable expenditure and saving — that is, the introduction of your business methods into your home — we recommend the John Hancock Home Budget Sheet.

Your local John Hancock office will be glad to send you a copy, or one can be obtained by writing to Inquiry Bureau and enclosing 2 cents for postage.

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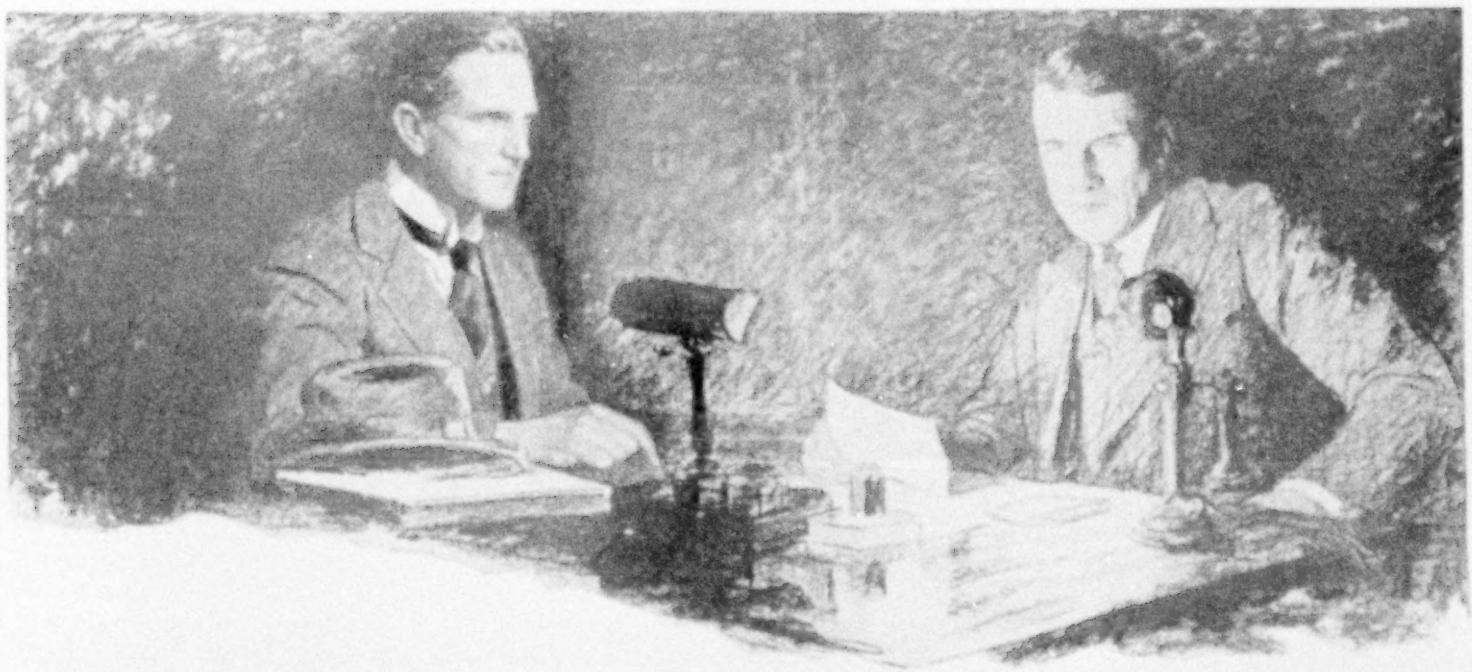
MUTUAL
LIFE INSURANCE COMPANY
OF BOSTON, MASSACHUSETTS

197 Clarendon Street, Boston, Mass.

N. G.



LOST: $35,000

THE OTHER DAY a representative of the Alexander Hamilton Institute walked into a business man's office in answer to a telephone call.

"I have sent for you because I am in serious trouble," said the man. "I am on the verge of bankruptcy.

"Fifteen years ago I had an opportunity to enroll with the Institute," he went on. "But I was just out of college, making a good salary, and I expected to get my experience out of my work. I did pretty well. I accumulated a small fortune."

He hesitated. "It's gone now," he said. "In the last two months I have lost $35,000 in my business, and all because there are certain fundamental principles of business I thought I knew *and didn't*.

"But it's not too late," he concluded. "I can get back that $35,000, and this time I won't lose it. I want to enroll for your reading course before another sun sets."

Procrastination is the thief of *cold, hard cash*

It is the business of the Alexander Hamilton Institute to prevent just such tragedies as this. How? By providing a means whereby a man may become familiar with *all* the underlying principles of business.

The young man of twenty with no responsibilities to anyone but himself can perhaps afford to take a chance.

But these are serious days, these days after thirty! The earning of money, once taken more or less lightly, has become vital. You want your wife to have every comfort this world offers. You want your children to have as good a chance as you had—a better chance.

It is to mature men—men who not only *want* to succeed but *must* succeed—that the Institute appeals most strongly.

For more than sixteen years it has been the privilege of the Institute to help men shorten the path to success; to increase their earning power; to make them masters of the larger opportunities in business. More than 300,000 men have profited by its training.

Its Advisory Council consists of these prominent men: General T. Coleman du Pont, the well-known business executive; Percy H. Johnston, President of the Chemical National Bank of New York; Dexter S. Kimball, Dean of the College of Engineering, Cornell University; John Hays Hammond, the eminent engineer; Frederick H. Hurdman, certified public accountant and business advisor, and Jeremiah W. Jenks, the statistician and economist.

The typical Institute man is—*You*

You are probably over 30. The average age of Institute subscribers is 37.

You have a wife; perhaps children. A majority of Institute subscribers are married.

In other words, this training is especially designed for *you*. Will you let us tell you about it?

Send for this valuable book

Out of our experience we have prepared a book called "Forging Ahead in Business." We should like to send you this book—free by mail and without charge.

It is a cheerful, helpful book. It proves conclusively that a man's responsibilities and income can be increased by a definite addition to his business knowledge; and it points the way. The coupon brings it to you.

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484 Astor Place, New York City

Send me at once the new revised edition of "Forging Ahead in Business," which I may keep without charge.

Signature .....

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Business Address .....

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IN CANADA, *address the Alexander Hamilton Institute, Limited, C. P. R. Bldg., Toronto*

Music's great moments are endlessly yours

ABOVE, the vast temple filled with light and incense, where ceremonies continue immutable in the sanctuary of the indifferent gods. Below, two human beings, dying in each other's arms. . . . A chanting of white-robed priests. And floating calm and pure from the sealed rock chamber, a mingling of lovers' voices, bidding farewell to earth and to life itself.

The famous duet, "O terra addio," from "Aïda," is one of the most beautiful and affecting in the entire range of music. This last tragic meeting of *Rhadames* and *Aïda* is among the supreme moments of all opera. It has been magnificently recorded (on Victor Red Seal Record No. 3041) by Martinelli and Rosa Ponselle. As a lover of good music you will not want to be without this important record. Yet it is only one of many fine recordings.

The world's great music, the most distinguished artists and orchestras, are always yours on Red Seal Records. No matter where you live, they bring into your home the best of the operatic stage and the concert platform. Their music is realism itself—marvelously rich in tone, resonant and responsive. . . . The nearest Victor dealer will be glad to play any Red Seal Record for you. *Write today for the illustrated booklet, "A Musical Galaxy," with foreword by Leopold Stokowski—a commentary upon six of the greatest moments in music. It is yours for the asking.* Victor Talking Machine Company, Camden, New Jersey, U. S. A.

VICTOR

FEW moments in opera can equal the finale of "Aïda" in its magnificence and tragic power. The above scene, painted by Eduard Buk Ulreich, is familiar to every opera-goer. The granite slab has closed over the head of the doomed *Rhadames*, and he is preparing to meet his fate. Suddenly he discovers *Aïda* concealed within the vault. Rather than live without him, she has chosen to perish with him. Their last great duet rises high above the temple chant . . . trembles . . . and dies away. . . .

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STEINWAY

THE INSTRUMENT OF THE IMMORTALS

THE KING'S HENCHMAN, *painted by* N. C. WYETH

The première *of "The King's Henchman"—an opera composed by Deems Taylor to the libretto by Edna St. Vincent Millay—took place at the Metropolitan Opera House in New York on February 17, 1927. Its reception was enthusiastic. It is the first successful work in this field by an American composer and librettist.*

THE reasons for owning a good piano are so varied and conclusive that no thinking person can afford to disregard them. For its influence in moulding musical traditions . . . for its undoubted decorative effect . . . for the joy of personal creation which it gives . . . cultivated people everywhere regard it as indispensable.

That such people should choose the Steinway is both natural and inevitable. Their taste will not tolerate anything short of the best. Their homes are graced and brightened by its presence. And their ear delights in that marvelous, singing tone which has won the praise of virtually every musician of note, from Franz Liszt to Deems Taylor.

Yet for all its unquestioned superiority, the Steinway is among *the least expensive of pianos.* The durability which is built into it—carefully, step by step—extends the limits of its service over 30, 40 and even 50 years or more. And no matter which of the many sizes you select, it will yield that rich return of pride and pleasure which only a Steinway can give—to you, and your children, and your children's children. You need never buy another piano.

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Prices: $875 *and up*

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"Nuthin' I Like!"

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HUNGRILY and expectantly he had gone to dinner. "Nuthin'" he liked—just things which "were good for him". String beans—he wouldn't eat them. Time had come for discipline. When told that he was to have none of a favorite dessert, he gave in. Smiling thro' his tears after the first few mouthfuls, he said, "I didn't know it, but I was liking string beans all the time."

PERHAPS in your own home there is a small child who is finicky about his food. But you insist upon his having plenty of milk, cereals, vegetables and the other foods he requires, for you know that the growth of his body and his health depend upon the "building" foods he eats.

But how about yourself? Have you dropped into the habit of ordering what you like without regard to the foods you need to build and repair your body and to keep it in the best possible condition of health?

Diet is literally a separate problem for each individual. The "overweight" is usually too fond of starchy, sugary and fatty foods and disinclined to eat vegetables and fruits, while the "underweight" often neglects the fattening foods he needs. Appetite is not always a reliable guide to correct eating.

Take time to find out what constitutes a properly balanced day to day diet for a person of your age—how much meat, fish, cheese and milk you require, how many sweet foods, and most important of all—how many vegetables. Don't forget the string beans or the tomato, King of the Vitamins. Raw salads, fruit, butter, cream and nuts are important parts of the regular food supply when taken in correct amounts. And six to eight glasses of water daily, please—mainly between meals.

Through a well-balanced ration, you can keep in good condition every part of your body—muscles, bones, vital organs, nerves, eyes, teeth and even hair. It is interesting to discover what each particular food contributes to the body—to know just what to eat if you wish to reduce your weight, or increase your weight, or keep it normal.

Incorrect diet is responsible for a vast number of ailments and lack of strength and vigor. It is estimated that three calls out of ten in doctors' offices are caused by faulty diet—errors that may be easily corrected.

For more enjoyment in eating and for better health from eating, learn what to eat.

Because our daily food needs are little understood by most persons, the Metropolitan Life Insurance Company has prepared a booklet, "The Family Food Supply", which tells what to buy and how, and includes diet and marketing helps for the housewife.

The best food is not always the most expensive, and the most expensive is oftentimes far from the best. The least costly foods can often be prepared in such a way as to give more nourishment and more taste-satisfaction than those which are extravagant in price.

By means of this booklet, the modern housekeeper can easily find out which foods her family requires. She will learn which foods are needed by a man who does heavy physical labor, which are necessary for the office-worker, which for herself and which for the growing child.

"The Family Food Supply" tells how to buy economically and should be used in connection with the "Metropolitan Cook Book". A copy of either, or both, will be mailed, free, upon your request.

HALEY FISKE, *President.*

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Let the new *Whitman's* package *be your Valentine!*

Chocolates in an assortment trying for the high mark of perfection!

Pink of Perfection is more than a name—it is an aim and an ambition.

Many who have enjoyed it declare it to be the last word in assorted chocolates—their ideal. Whitman's makes a gift distinctive, delightful—a valentine to be enjoyed and remembered.

For variety, there are both milk chocolate and vanilla chocolate coatings on fudge, nuts, creams, caramels, marshmallows, nougat, fruits; and solid milk chocolates. Some of the milk chocolate coatings are mixed with ground almonds.

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PINK OF PERFECTION

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AROUND THE WORLD IN THE "ISLANDER"

A Narrative of the Adventures of a Solitary Voyager on His Four-Year Cruise in a Thirty-Four-Foot Sailing Craft

BY CAPT. HARRY PIDGEON

With Illustrations from Photographs by the Author

"WHY did you do it?" is the question I am most frequently asked in regard to my single-handed voyage around the world.

The best reason I had was the lack of means with which to build a larger vessel and hire a crew to sail it for me. There is also a great satisfaction in accomplishing something by one's own effort.

My love of the sea did not come from early association, for I was born on a farm in Iowa and did not see salt water until I went to California, when I was eighteen years of age. So far as I know, none of my ancestors ever followed the sea.

After several years spent on a ranch in California, I went to Alaska, where I learned to saw out boards from the trees on the shore and make small boats, in which I had many thrilling adventures on the rivers and lakes of the north.

At one time I owned a small vessel and sailed it among the islands of southeastern Alaska, but I never went out upon blue water and most of my time was spent hunting and making photographs along the rivers and in the mountains of that great land.

Returning to California, I became a photographer among the great trees of the Sierras, but after a few years of this work, pleasant though it was, I longed for new scenes.

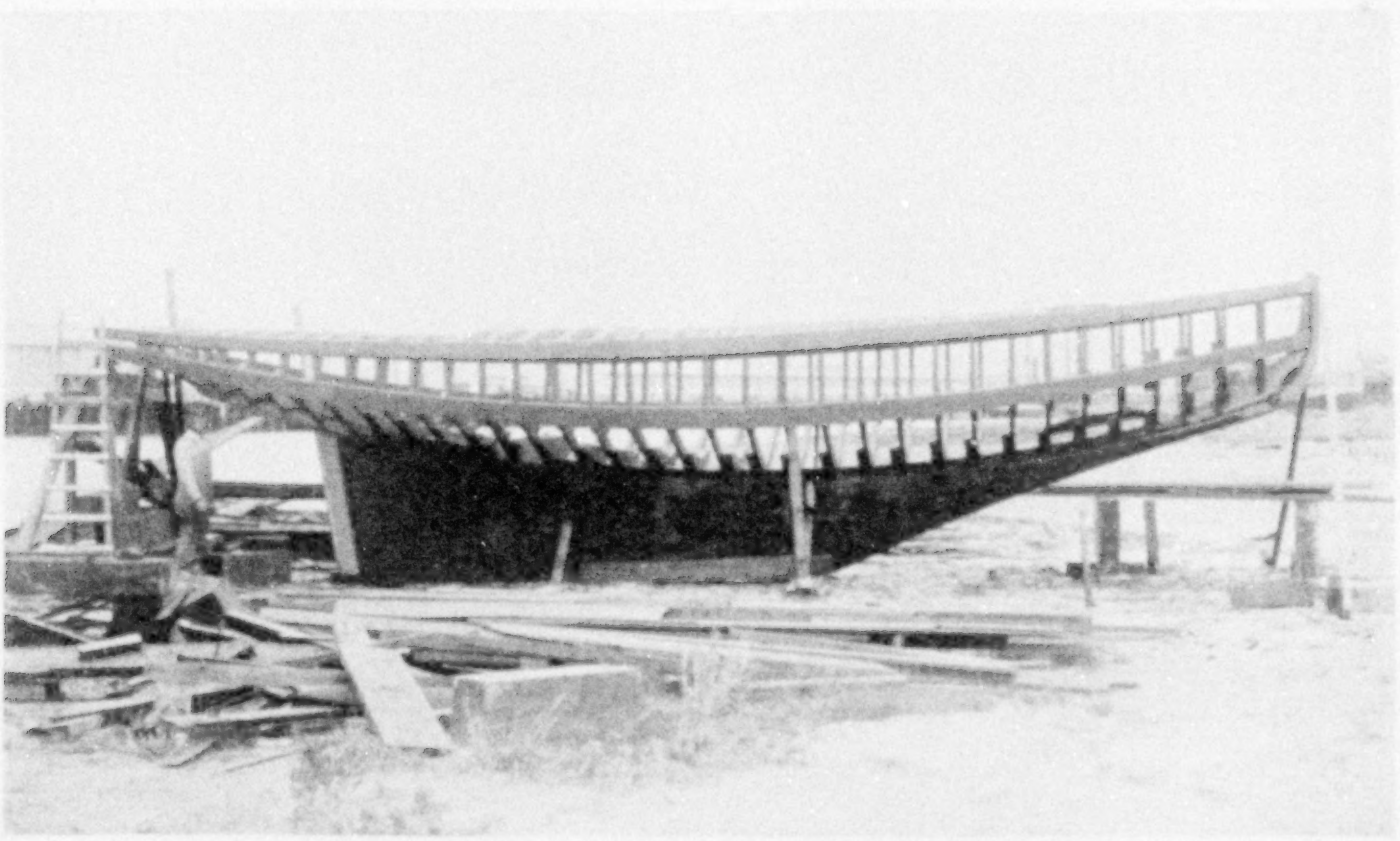
A VOYAGE TO ISLES OF THE SEA IS DECIDED UPON

About this time I came across the plan of a boat that seemed to be very seaworthy and, in addition, was not too large for one man to handle. Moreover, the construction of it did not seem to be too difficult for my limited knowledge of shipbuilding. I decided to build my long-dreamed-of ship and go on a voyage to the isles of the sea.

From the mountains I went down to the shore of Los Angeles harbor, set up my camp, and began the actual work of construction.

The plan from which I was to model my ship was one that had been drawn for Capt. Thomas Fleming Day, who had had wide experience in sailing small boats, and it was Captain Day's idea of what a small seagoing craft should be. It was of the *Sea Bird*, or V-bottom, type, with iron ballast on the keel.

The timbers for the frame were all very heavy and reinforced at the bilge with steel knees, and when they were all bolted together as strongly as possible, the plank-



THE "ISLANDER" TAKES FORM

The vessel in which the author made his around-the-world cruise was almost entirely the product of his own hands.

ing was laid on. As I was working alone, the most difficult part of the construction was to put on the thick, heavy planks. It was a long, hard job, but gradually something like a boat began to appear.

The cabin was twelve feet long, arranged with a berth on either side and spaces for drawers and a wood-burning stove. Aft of the cabin was a cockpit, built water-tight and self-bailing.

THE CRAFT IS CHRISTENED "ISLANDER"

The masts were made and stepped, and the name *Islander*, which I had given the new ship, I painted on the stern board. I dug the ground away underneath and laid down ways on which the vessel might slide into the water. From the laying down of the keel to the launching, the work came near to being entirely of my own hands.

The *Islander* was rigged as a yawl, and was 34 feet long over all, 10 feet 9 inches beam, and drew 5 feet of water with no load in her.

For many reasons, mostly financial, I have never installed a motor. I built a skiff nine feet long for a tender, and when at sea this was hauled on board, turned over against the cabin, and lashed fast. In this position it was carried wherever I sailed.

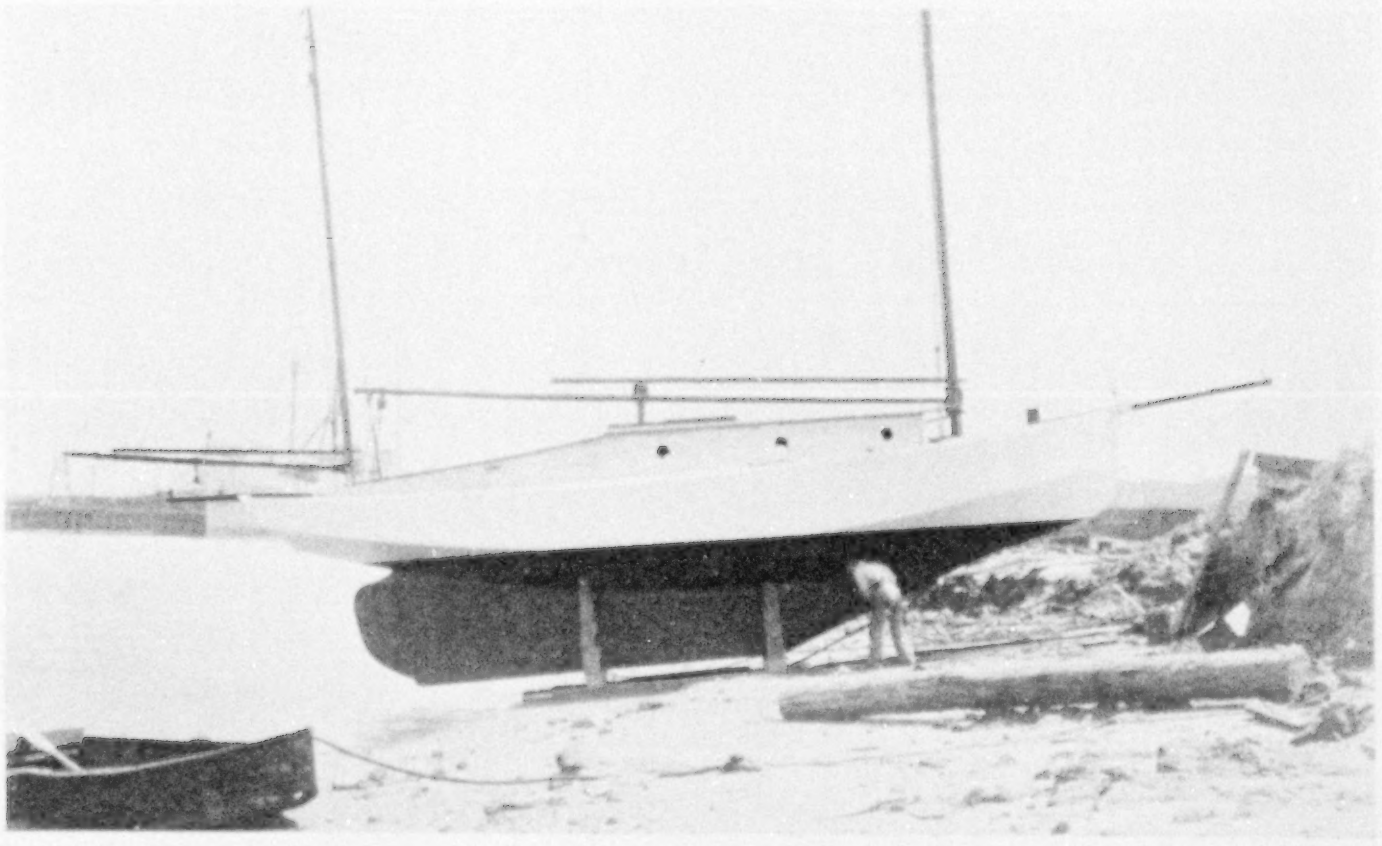
The *Islander* cost me about $1,000 for material and a year and a half of hard work

HOW THE SHIP WAS NAVIGATED

Many pleasant days were spent sailing about the near-by islands, sometimes with friends, but more often alone. In the meantime I procured books and instruments and began to learn something of navigation.

My method of navigation was simple, and consisted of determining the latitude and longitude by observation of the sun—two simple problems that require no special ability to master.

For the purposes of navigation, the earth is laid out in imaginary lines, called meridians of longitude and parallels of latitude, which may be likened to the streets and avenues of a city. The position of a ship at sea, and out of sight of land, on these meridians and parallels can be solved only by astronomical observation. When one can solve these problems he can find his way about on the sea as readily as he finds the numbers along the



THE AUTHOR LAUNCHING HIS YAWL IN LOS ANGELES HARBOR

Captain Pidgeon was a year and a half building his boat. Exclusive of his labor, it represented an expenditure of $1,000 for materials.

avenues and streets of a well-laid-out city. Dead reckoning I kept only mentally, and that merely to keep track of my position between observations of the sun.

The textbook on navigation that I used was "Navigation," by Harold Jacoby. I also had "The American Practical Navigator," published by the United States Hydrographic Office. For navigating instruments I had two compasses, two sextants, protractor, parallel ruler, dividers, and a taffrail log.

While the theory of navigation is simple and easy to learn, seamanship—the ability to care for and handle a vessel under all conditions and stresses of weather—is acquired only by experience and long practice.

When I felt myself competent, I set about preparations for an overseas voyage.

GROUND HIS OWN GRAIN FOR FLOUR AND MEAL

My boat had ample space for supplies, and of staples that keep, such as beans, peas, brown rice, dried fruits, sugar, bacon, and salad oil, I laid in a sufficient quantity to last several months. For bread I carried wheat and corn, which I ground in a small hand mill as needed. Of canned goods I had salmon, sardines, milk, tomatoes, peaches, and figs; but of these I ate sparingly.

I took along only what potatoes, onions, and fresh vegetables could be used before spoiling, and renewed the supply at every opportunity. I always used whatever native fruits and vegetables could be obtained at the places that I visited. Of water I had carrying capacity for about 100 gallons. I can get along very well on a half gallon per day. At sea I used salt water for bathing purposes.

THE "ISLANDER" SAILED ITSELF AT NIGHT

When one goes to sea in a small boat, many things have to be left behind. If not prepared to make some sacrifices, voyagers had better make their cruises in large, swift vessels carrying refrigerators or stay at home.

My first ocean voyage in the *Islander* was to the Hawaiian Islands and I went single-handed.

I am continually being asked, "What did you do at night?" That was what I now

ROUTE FOLLOWED IN THE CIRCUMNAVIGATION OF THE GLOBE

In his 34-foot yawl-rigged craft, Capt. Harry Pidgeon made his solitary way from California, through the South Seas, across the Indian Ocean, around the Cape of Good Hope, over the Atlantic, through the Panama Canal, back to his starting point.

began to learn for myself, and I lost a lot of sleep while doing it.

In the end I learned to shorten sail and get it balanced, so that the *Islander* would sail on almost any course while I slept. If she did run off the course a bit, what of it?

The return voyage from Hawaii was stormy, with almost continual head winds, but I had a shipmate, Earl Brooks, a friend, who came along looking for adventure.

I learned something of the sea on the voyage to Hawaii and became acquainted with the *Islander;* for ships, like men, have a personality of their own. Confidence had come with experience, and I began making preparations for a voyage to the South Seas.

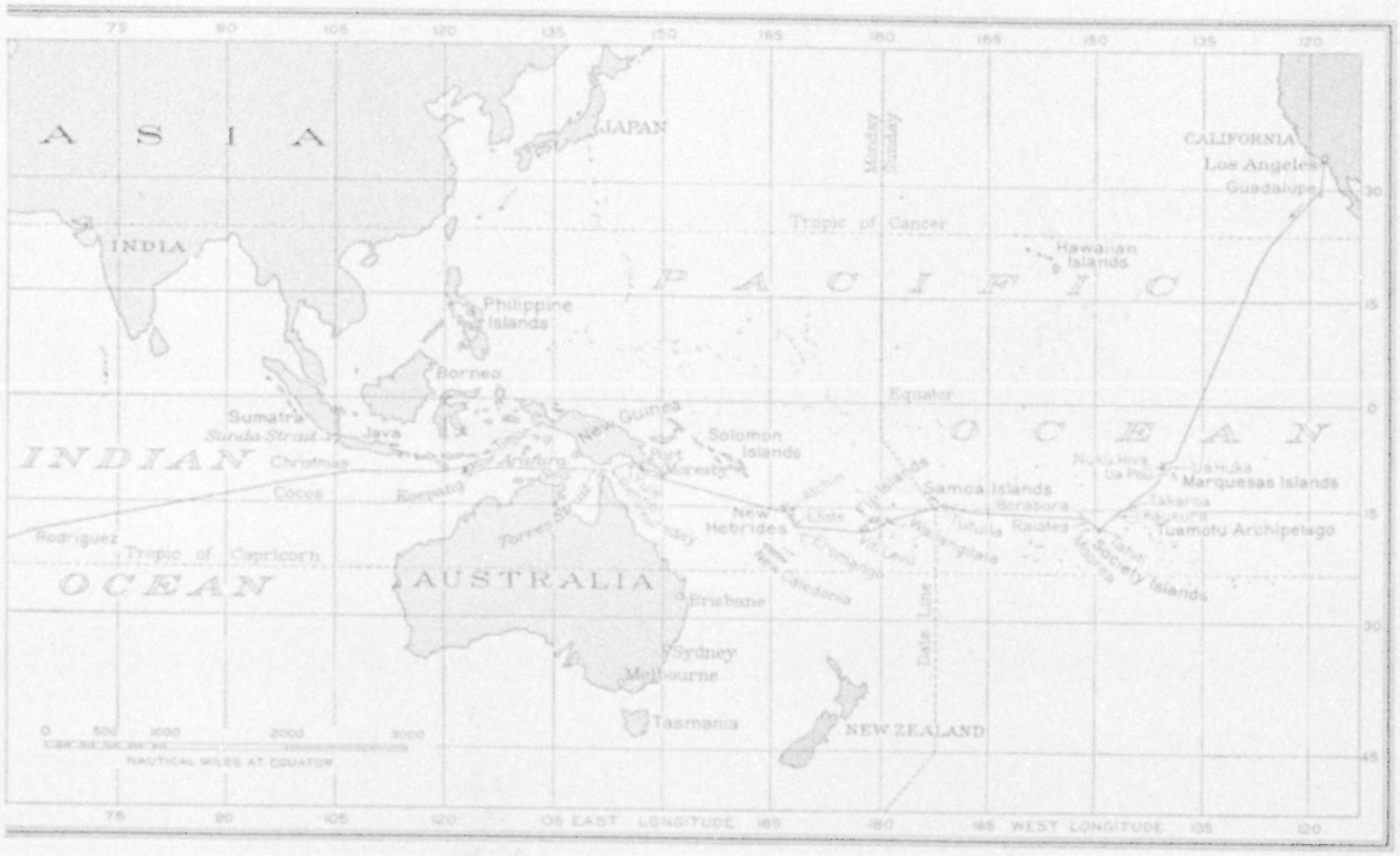
OFF FOR THE SOUTH SEAS

Charts and sailing directions were procured for the Marquesas, Society, and Samoa Islands, which places I intended to visit before returning to California. At the same time I had it in mind to extend the voyage if circumstances were favorable.

At noon on November 18, 1921, I sailed from Los Angeles for the Marquesas Islands. A fair wind was blowing, and on the third day out I saw the sun rising over Guadalupe Island, standing high on the eastern horizon. I had fair winds down to the doldrums, in latitude 11° N. I had never been so far south before, but I recognized the place when I ran out of a terrific rain squall into a calm.

For two weeks I was tossed about on a fitful sea. Sometimes the sun came out, but more often it rained, and there was a squall somewhere in sight most of the time. There was one day when I made only one minute of latitude in 24 hours, but the wind did blow once in a while, else I should have been in the doldrums yet. I met the southeast trade wind in latitude 5° N. and crossed the Equator for the first time at longitude 129° W.

Ten days in a gentle east-by-south wind, and then one morning I awoke to see Ua Huka Island of the Marquesas Group right ahead. I stood away to where Nuku Hiva lay dimly outlined in the west, and that evening I dropped anchor in Taiohae



Drawn by A. H. Bumstead

A VOYAGE OF NEARLY 27,000 MILES, SAILING WESTWARD FROM LOS ANGELES

Without funds for a de luxe trip around the world, the resourceful author decided to see foreign climes and strange peoples with the means at his command. He experienced a voyage of high adventure, with cordial hospitality extended wherever he cast anchor.

Bay, after 42 days at sea, during which time there was never sight of a sail or of the smoke of a passing steamer.

The French commissioner came off and after he learned that I came from California, welcomed me with, "Come on shore and have dinner with me. I lived in San Francisco for four years."

The *Islander* never sailed into a fairer haven than the Bay of Taiohae. After one passes through the entrance, about half a mile wide, a beautiful basin, about a mile and a half in diameter, opens out. From the fringe of coconut trees on the shore, the land slopes upward in many a glen and valley to the cliff and crags of the mountain range that surrounds the bay on all sides except at the entrance on the south (see page 146).

THE SCENE OF MELVILLE'S "TYPEE"

No island of the sea has attracted me as this one has—not alone for the grandeur of its scenery, but for its romantic history as well. During the War of 1812 Capt. David Porter, of the U. S. frigate *Essex*, took possession of Nuku Hiva and used Taiohae Bay as his base. And here Melville deserted the whaler to wander with Toby into the Vale of Typee.

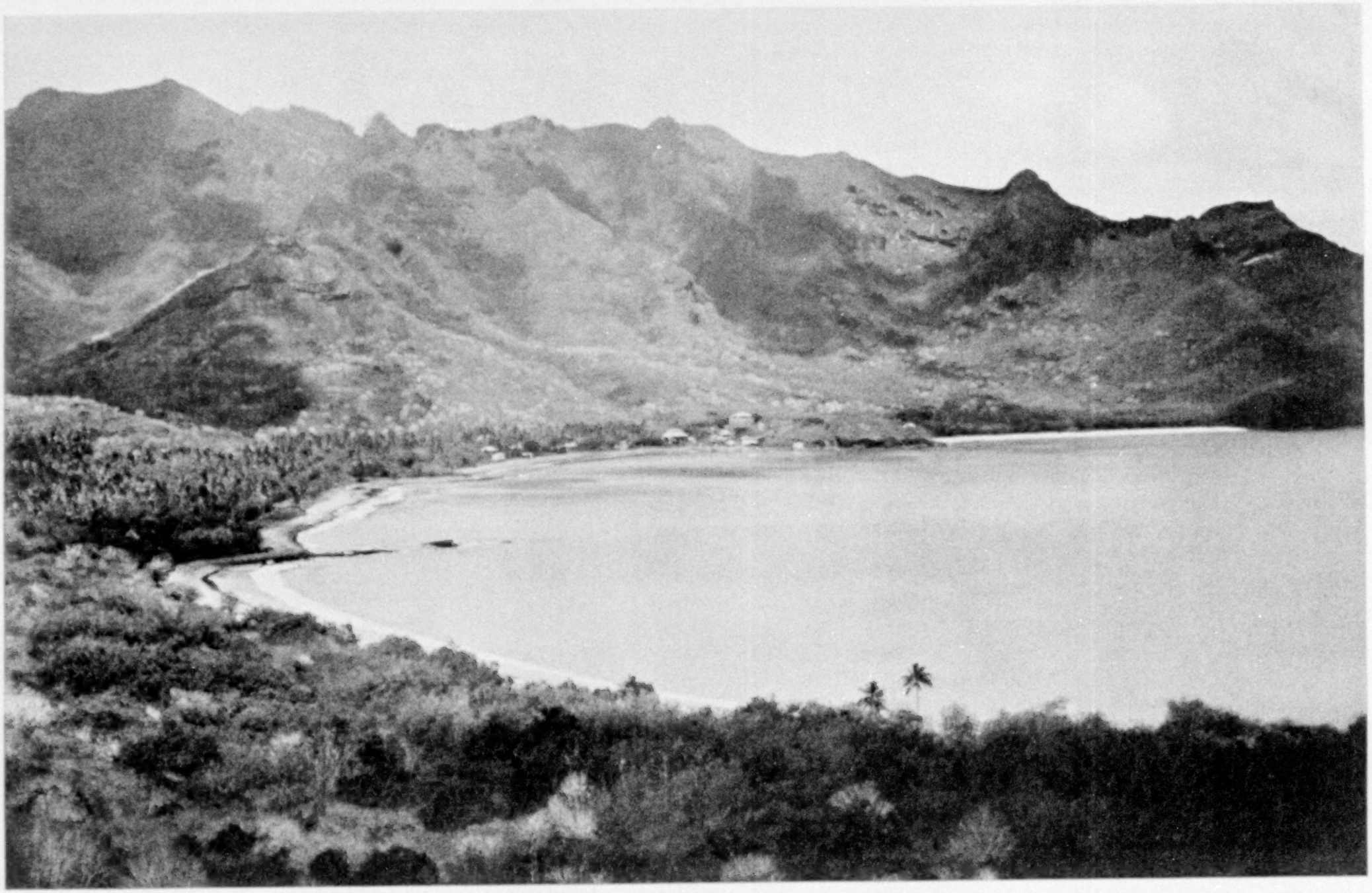
Coming after so long a voyage alone on my little ship to this island of my dreams, it seemed the most romantic place in the world.

When discovered, the Marquesas Islands were densely populated, but with the coming of the white man epidemic after epidemic swept the inhabitants off, until at the time of my visit less than two thousand people remained.*

Scattered here and there in the shade of the coconut and breadfruit trees were the houses of less than one hundred people that lived on the shore of this magnificent bay, and few of these were pure Marquesans.

Amid beautiful scenery and a healthy climate, they lived surrounded by their pigs, chickens, and dogs, and with man-

* See, also, "A Vanishing People of the South Seas," by John W. Church, in the NATIONAL GEOGRAPHIC MAGAZINE for October, 1919.



NO FAIRER HAVEN THAN TAIOHAE BAY: MARQUESAS ISLANDS

Forty-two days out from Los Angeles, the author sailed into these quiet waters of Nuku Hiva Island. On the beach to the right Capt. David Porter, American naval officer of the War of 1812, had his encampment and repaired his ships. Behind the clump of trees, just where the reef of rocks extends from the shore on the left, once stood the house of a Marquesan king (see illustration, page 157). Near by, under the tamarind tree, can be seen the roof of Queen Vikahue's house.

THE AUTHOR VISITS A MARQUESAN HOME

The sides of the dwelling are made of breadfruit saplings and split bamboo; the roof is a thatch of coconut-palm fronds. The house is simply furnished with two or three mats, and stands upon a stone platform known as the paepae, built without mortar or cement (see, also, text, page 151).

A SOUTH SEAS DRY DOCK WHERE NECESSITY DEMANDS

In order to paint the bottom of his craft before proceeding through the countless islands of the South Pacific, the author beached his craft on the sands of Anaho Bay, on the north side of Nuku Hiva, of the Marquesas Group (see text, page 153). During his round-the-world cruise the author repeatedly beached his vessel in this manner to scrape and paint her (see pages 175 and 201). Here Robert Louis Stevenson first saw the South Seas when he came to this haven in the *Casco*.

A STONE CARVING: TYPEE

There are 24 figures like this in the foundations of three houses on Nuku Hiva Island, where priests once lived.

ONE OF THE TWO LAST SURVIVING TYPEES

Poi Utu lives in the Vale of Typee, made famous by Herman Melville's South Sea Island romance of the same name (see text, page 151).

THE AUTHOR EXAMINES A STONE WALL IN THE VALE OF TYPEE

WHERE MARQUESAN SAVAGES FORMERLY KEPT THE SKULLS OF THEIR ENEMIES

A warrior priest lived on the paepae (stone platform) to guard the skulls, one of which the author holds in his hands. When one of these priests died, his body was put away in the banyan tree, so that even in death he still kept guard (see text, page 153). A tabu has been placed on the spot and no native will go near it.

POI UTU AND THE AUTHOR STANDING BY "PORTER'S PAEPAE"

This wall was the scene of fighting between the Typees and the forces of Capt. David Porter, of the U. S. frigate *Essex*, in the War of 1812.

goes, papayas, and bananas in profusion all around. Never have I seen a place where tropical produce flourished more luxuriantly or grew with less care.

About five miles west of Taiohae Bay is a small landlocked harbor called Hakatea. Extending inland from the bay is the wonderful Hakaui Valley, the west side of which is formed by almost perpendicular cliffs of fantastically eroded volcanic rock. Off the cliff plunges a waterfall for more than 2,000 feet down into a dark gorge, whence the waters find their way through tropical verdure to the sea.

High up in one of the gorges, near the falls, perched like an eagle's nest, I came across an old native fort called Ana-o-tako, where once the people of Hakaui Valley had defended themselves when attacked by all the other tribes of Nuku Hiva and Ua Pou.

The largest and fairest valley of Nuku Hiva is the Vale of Typee, or Taipi Vai, as the natives call it. Melville has made the valley famous in his "Typee," and Captain Porter in his Journal has given a stirring account of the valor of its inhabitants. Sailing into Comptroller Bay, I anchored off the beach at Taipi Vai and made the acquaintance of Hakatau and Poi Utu, the two last surviving Typees.

WHERE MELVILLE'S HERO FEASTED WITH KING MEHEVI

Poi could speak a little English and, becoming my guide, told me what he could of the native history and tradition. He pointed out the site of the forts where his forefathers had fought with Captain Porter's force, and other places of interest.

Far up in the valley was the site of an ancient feasting ground, where he said long ago two Americans had lived with a great chief. His description was such that it seemed probable that it was the place where Melville's hero feasted with King Mehevi.

As we wandered among the deserted paepaes (stone platforms upon which the natives build their houses), Poi would occasionally point to one side and say, "Tabu paepae; Kanaka no go there!" and would pass by another way. He was referring to spots which, because of some events that had taken place there, were held to

MARQUESANS MAKING "POIPOI" FROM BREADFRUIT

This famous dish (not to be confused with the *poi* of Hawaii, Tahiti, and other South Sea Islands) is made from rotted breadfruit. After the white, somewhat mushy pulp is ground in a wooden bowl, it rises like a mass of fermenting dough. An unpleasant odor and an acrid, bitter flavor make it decidedly distasteful to the uninitiated palate.

MARQUESANS ENJOYING THEIR NATIONAL FOOD

All sit on mats and dip into the same bowl with their fingers. The droughts from which the Marquesan has suffered, necessitating the long storing of breadfruit, were responsible for a practice which eventually established rotted breadfruit as his national dish, and centuries of eating the fermented pulp finally destroyed his liking for the fresh fruit (see page 155).

EIGHT TIMES A YEAR TO NUKU HIVA COMES THE WORLD'S POSTMAN

A group of Marquesans at Taiohae Bay bids farewell to the *Hinano* as it sails for Tahiti.

be forever sacred from the intrusion of man—spots which were tabu.

One day I came across one of these tabu places. At the foot of an ancient banyan tree was a paepae about 15 feet square and 4 feet high. In it was a pit about 3 feet across. How deep the pit was I could not see, for it was full of skulls (see page 150).

When I described the place to Poi, he said, "Tabu paepae," but I learned the history of the place. It was called Ahau. Here the Typees had kept the skulls of such of their enemies as had been unfortunate enough to fall into their hands.

On this paepae a warrior priest had lived and kept guard over the skulls. When one of these priests died his body was placed in the trunk of the banyan tree in such a manner that the ever-growing roots thrown down from above would grow over and incase it. Thus, even in death the priests still kept guard.

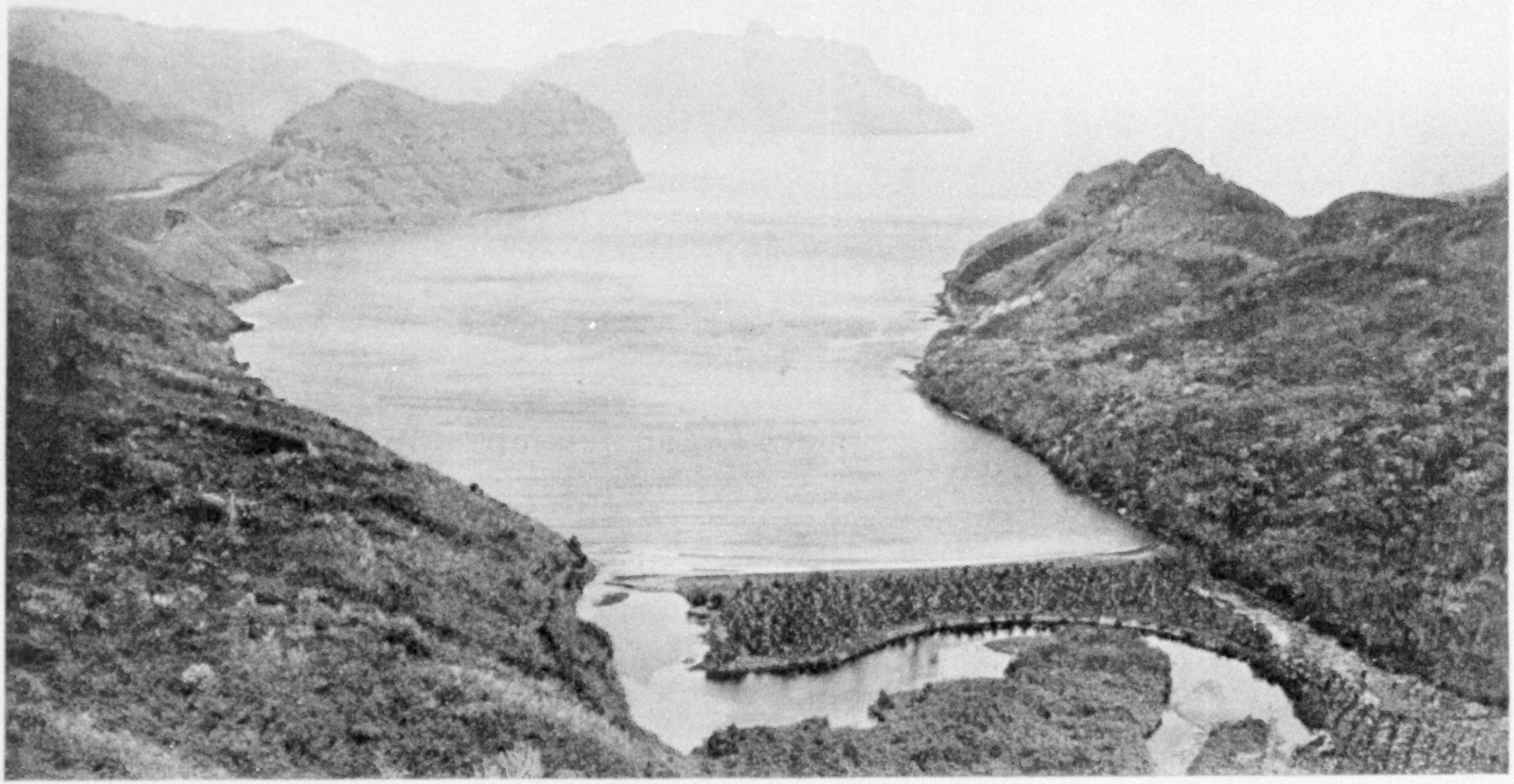
When I was leaving Typee, Poi gave me the largest bunch of bananas that I ever saw; but he would not let me help carry it down to the shore, for that was not the way of Typee. I must not be seen carrying it. He hung the bunch on a pole and took up the short end, while his adopted daughter shouldered the other.

THE "ISLANDER" GOES INTO IMPROVISED DRY DOCK

From Comptroller Bay I sailed around to Anaho Bay, on the north side of Nuku Hiva, where there is a quiet nook, a good place for beaching and repairing boats. With the spring tide I ran the *Islander* on the beach and went to work with scraper and paintbrush (see illustration, page 148).

For two days and nights I worked with scarce time to rest, watching my boat with each turn of the tide, and when one side was finished I warped her around and down on the other side. It was most exhausting work, but it had to be done. When in tropical waters no other part of an unsheathed vessel requires such constant care as the bottom.

One of the peculiarities of Nuku Hiva and, so far as I know, of the other islands of the Marquesas Group, is the absence of coral reefs. The deeply indented shore and the small area of the lowlands at the mouth of the streams indicate that the



THE AUTHOR'S YAWL, A TINY SPECK OF WHITE IN THE MIDDLE FOREGROUND, LIES AT ANCHOR IN COMPTROLLER BAY

The largest and fairest valley of Nuku Hiva is the Vale of Typee, or Taipi Vai, which runs down to this harbor (see text, page 151).

THE BREADFRUIT TREE (LEFT) PROVIDES THIS FAMILY'S FOOD

The most important staple of the South Sea Islands is a fruit about the size of a small melon. Wallace, the noted naturalist, says that "with meat and gravy it is a vegetable superior to anything I know, either in temperate or tropical countries." When cooked, the taste has been compared to that of boiled potatoes and sweet milk. The author made only a brief visit to Ua Pou (Island of Night) of the Marquesas Group.

A BANANA-SHADED ROAD IN HAKAUI VALLEY

INTERVIEWING REPOY, THE LAST OF THE HAPPARS

In his "Typee" Melville gives a vivid description of how the defeated Happar tribesmen were borne to a sacred spot, where their bodies provided the baked meats for a triumphal feast. In the author's hand is the string with which he operated the shutter of his camera to make this picture.

ON THIS PLATFORM ONCE STOOD THE HOUSE OF A MARQUESAN KING

island subsided too rapidly for the reefs to build up. A botanist who was exploring the islands during my stay told me he had found plants that in this latitude belong at an altitude of 10,000 feet, although the highest peaks of the Marquesas are now only about 4,000 feet above sea level.

A SHARK PURSUES THE SKIPPER

I sailed from Nuku Hiva carrying the blessings of its kind people and my ship was laden with its fruit. The wind was light, but at dusk Ua Pou, the Island of Night, lay abeam. The wind continued light and I was reminded of the doldrums.

One day, when becalmed, I plunged over the side and swam around the boat; then, seized with a sudden apprehension, I climbed quickly on board in time to see a shark come swimming up. He followed the boat all day, and only left off after I had wounded him twice with the boat hook.

I had no charts of the Tuamotus, but the sailing directions gave the latitude and longitude of the islands.* One morning a feathery line appeared on the horizon. It was Takaroa and my first sight of a coral atoll.

Coasting along off the shore, I passed a great four-masted ship, the *County of Roxburgh*, high on the jagged reef.

When I came up off the pass into the lagoon the tide was running in. Takaroa Village is just inside the entrance, and in a few minutes I was alongside the wharf (see page 159) with a crowd of cheerful natives devouring the bananas I had brought from Nuku Hiva.

THE MARVELS OF AN ATOLL

One's first visit to a coral atoll makes a vivid impression—just a wreath of verdure cast upon the sea. A thin fringe of coconut trees and bushes incloses the calm waters of the lagoon, but down below all this is a wonderful underwater world, where myriad fishes of all colors and shapes, from monsters to butterflies, dart or glide in and out of the coral caves. On the inner reef are many beautiful shellfish.

I never tired of searching the beach for the pretty shells that washed ashore.

But the hurricanes wash the soil off the island, and little else besides coconuts will grow in the coral gravel. The natives

* See, also, "The Romance of Science in Polynesia," by Robert Cushman Murphy, in the National Geographic Magazine for October, 1925.

THESE GIRLS OF TAKAROA GREATLY RELISHED THE BANANAS BROUGHT BY THE AUTHOR FROM THE MARQUESAS

present a prosperous appearance, for they produce much dried coconut for export, and pearl shells are found in the lagoon. All able-bodied Tuamotuans are pearl divers and most of them are good sailors as well.

A change in the weather had set in while I was at Takaroa, and the wind was blowing strong, with frequent rain squalls, when I sailed for Tahiti.

From island to island I picked my way, and the next day, in a squall, I rounded Kaukura and lay on a course for Tahiti, clear of the Tuamotus, on whose reefs the timbers of many a stout vessel have bleached.

A HEARTY WELCOME TO TAHITI

No isle of the Southern Seas has a more gorgeous appearance than Tahiti. When the sun rose over the scene of island splendor, I was gliding along outside the barrier reef looking for the entrance to Papeete harbor. My coming had been heralded by the crews of the trading schooners plying to the Marquesas, and a crowd, including several Americans and other English-speaking residents, gathered to welcome me to the isle.

When approaching from the sea, one does not see much of Papeete, for it is hidden away under immense shade trees, which make it quiet and restful.

There are many places of interest to see in Tahiti, if one has the energy to find them, but on the whole it is easier to go to the morning market or sit in the shade and hear tales of strange adventure told by men from the ends of the earth. On the esplanade near where the *Islander* lay were some magnificent trees, in the shade of which gathered the men of leisure to discuss the questions of the day. Here and at the Sunday morning market one could meet all the worth-knowing characters of Papeete.

SUNDAY MARKET TAKES THE PLACE OF A NEWSPAPER

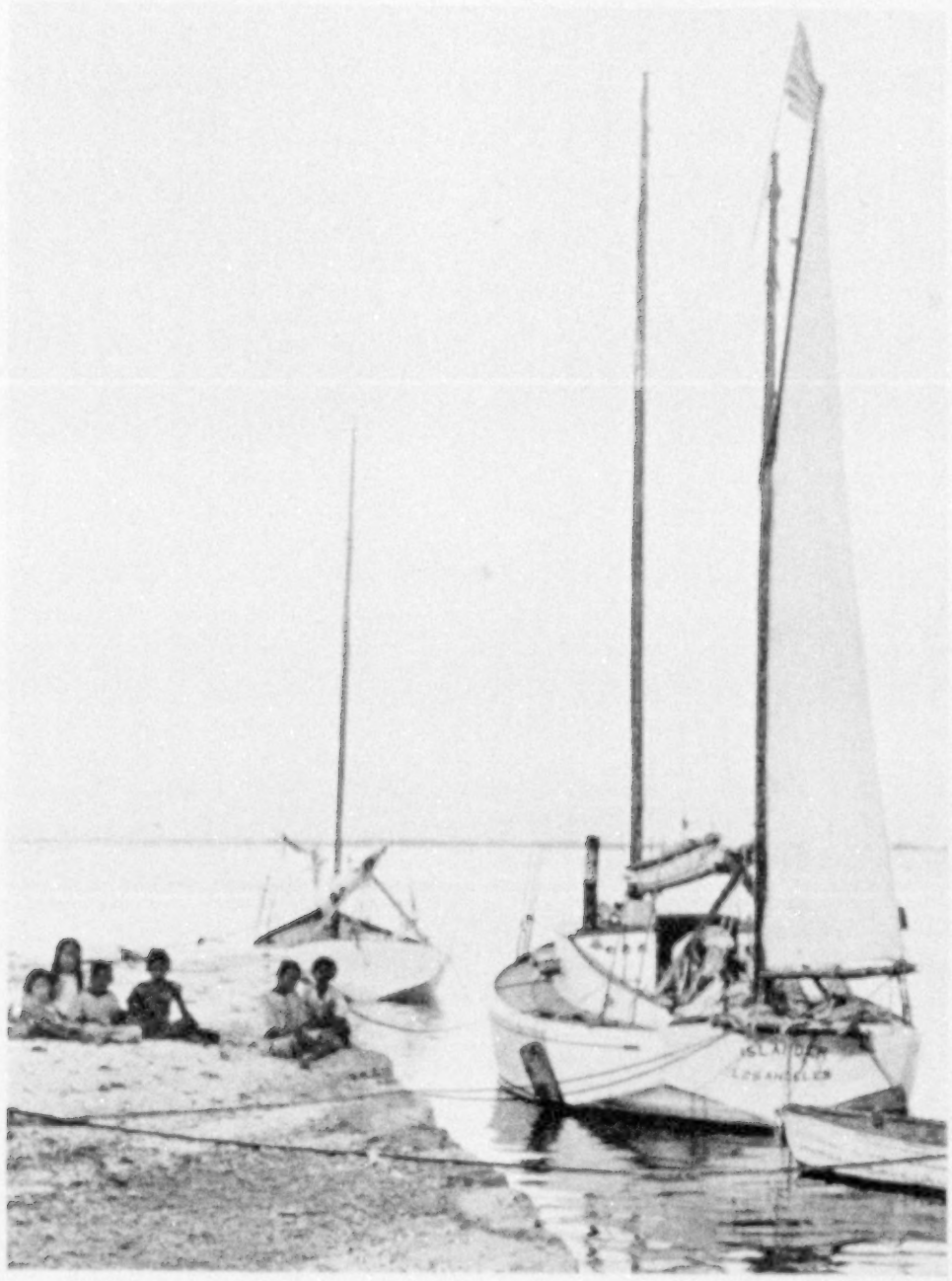
There was no newspaper published in Papeete, but the Sunday morning market answered every purpose. The men talked, the girls bought garlands of flowers to deck themselves with, and the housewives

laid in a supply of fruit, fish, and vegetables.

In the Society Islands I noticed a peculiarity in the tides that I have not seen elsewhere, nor have I found any explanation. High tide always occurs at about midday and again at midnight.

I had intended staying a month in Tahiti, but it was two months, and I had helped the French celebrate the anniversary of the fall of the Bastille before I broke away from its fascination.

When I sailed from Papeete the American consul charged me $5 for a bill of health. This was the only place the world around that the *Islander* was not exempted from paying port charges. From Papeete I crossed over the channel to Moorea Island and dropped anchor in beautiful Paopao Bay (see page 164).



DOCKED AT TAKAROA: TUAMOTU GROUP

On the shore of the bay lived a Raiatean, who had come there to look for buried treasure. He sought me out and invited me to come to his house to eat and to talk. He had a map of the bay that was supposed to indicate the location where a fabulous sum of South American gold was buried. It was romantic to find a South Sea islander digging for treasure, but I think he was getting discouraged about finding the gold, for he had rented a piece of ground and made a good start for a plantation.

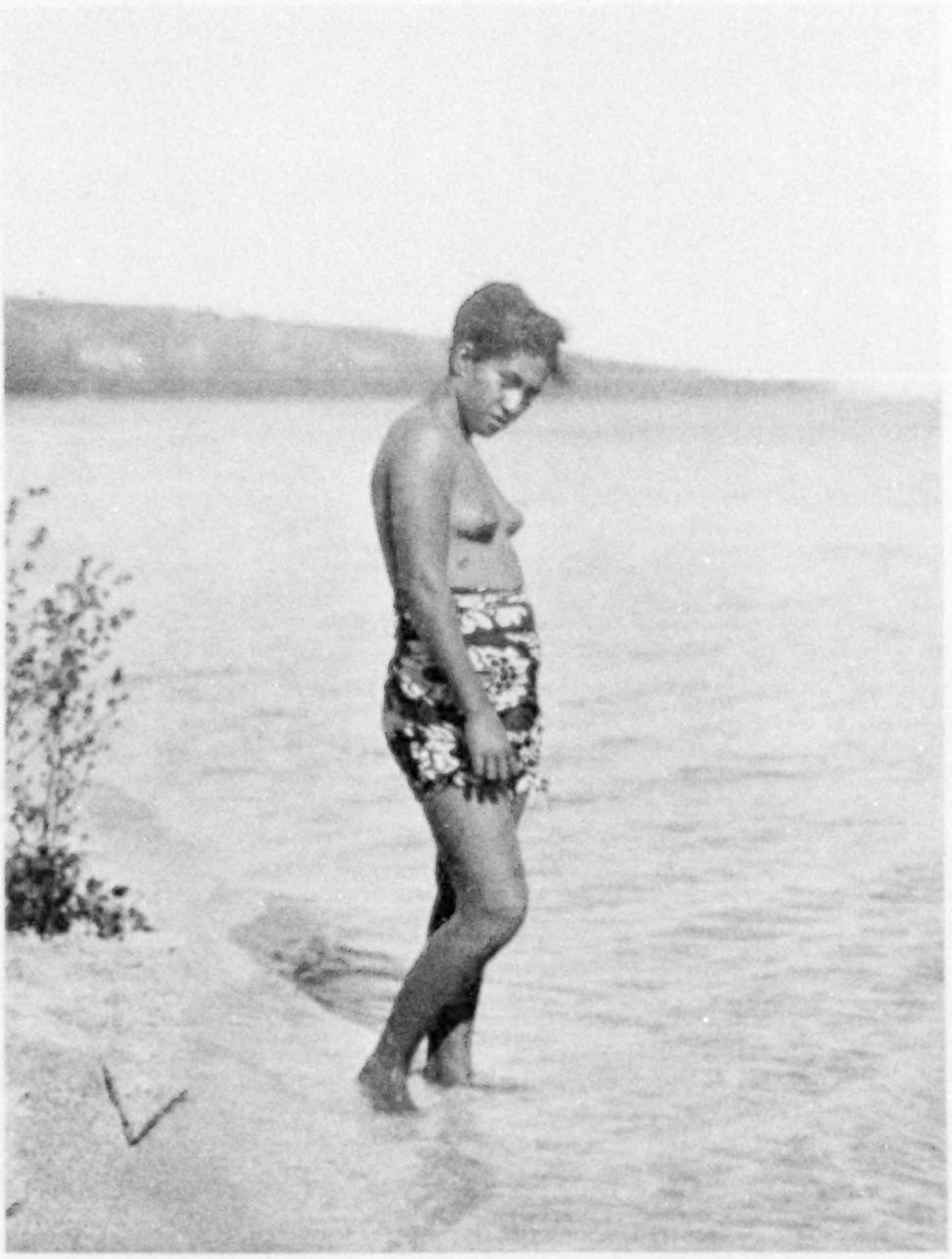
With a native boy for a guide, I walked across country to Papetoai Bay. There was no road, but we followed for a time a track made by wild pigs through the forest, and then wandered, hot and thirsty, through the wild canes. At last we came down to where a herd of cattle was grazing on a beautiful green meadow.

We found sweet oranges to quench our thirst and rested in the shade of the trees. It was one of the prettiest spots in the world, and I thought I should like to settle there and quit the tossing sea, but in the end I wandered back to the *Islander* and made ready to sail.

INTRODUCED TO ALL THE INHABITANTS OF BORABORA

With a light, fair wind I sailed on and came to Borabora, in the Leeward Group of the Society Islands.

Borabora slopes down from a high central peak, and the surrounding barrier reef has a fringe of coconut trees, giving the whole the appearance of a volcanic



ON THE SANDS OF TAHITI, THE DEAUVILLE OF THE SOUTH SEAS

island standing in the lagoon of an atoll. It is one of the most charming isles of the South Seas (see page 165).

Its only white inhabitant was the French gendarme, who did not speak English.

I started out for a walk and asked a young man, Tauraa Ottori, some questions about the island road. He did not seem to understand, but he took it on himself to accompany me, or rather he exhibited me to the inhabitants of the outlying districts. We called at almost every house that we passed, and to every one that we met on the road he seemed to be giving a glowing account of his charge.

I must have met most of the inhabitants of Borabora that day; but it was a wonderful jaunt, and the road passed right around the central mountain of the island.

The people were busy gathering and drying their coconuts. Some were preparing tapioca from manioc roots; others were looking after their vanilla, a considerable quantity of which is produced on the island. One is continually hearing about how lazy the Kanakas are, but I have wondered why they are so industrious as they are.

A few days at Borabora and then one morning I put to sea again. When the sun was low the peak of Borabora was only a small blue dot on the eastern horizon, and for eleven days I sailed on into the west.

RUNNING BEFORE A STORM INTO PAGO PAGO

For the most part the weather was fine, with the trade wind well around to east, but on the last day the wind and sea came rolling up from the south, driven by some commotion in the southern ocean.

All day I sat at the tiller, running off before the worst of the breaking seas and hoping to close up with the coast before darkness set in, for I did not know if I should dare to try running into a strange harbor on a stormy night with the wind blowing right on shore.

It was 2:30 in the afternoon when I sighted Tutuila Island, and it looked small and far away. The sun had set before I came up with the east end of the island, but before the light failed I made out the headlands on either side of Pago Pago harbor. In the gathering gloom of night and driving before a rain squall, I sailed in, let the anchor go, and no one on shore knew I was there until the next day.

When morning came I looked out on a landscape greener than any I had seen in the eastern islands. American Samoa has an abundance of rain; hence the fresh, green appearance of the place. I once asked an old resident if it rained every day in Samoa, and he replied that he had lived there 20 years and had no recollection of a day when it did not rain some time during the 24 hours. However, the rain comes in heavy showers, more often at night, with much sunshine during the day.

American Samoa is the only place that I visited in the South Seas where the native population is increasing. The people have come less in contact with Europeans, and their houses, clothing, and habits of life have changed less than in most of the islands.

There is no opportunity there for the acquiring of land for plantations and the subsequent importation of diseased Asiatics for laborers.

NATURE'S LARDER IN TAHITI

TATTOOED PANTS ESSENTIAL TO SOCIETY MAN OF SAMOA

The natives of Tutuila Island still retain enough of their primitive arts and customs to be interesting. The principal social event during my stay at Pago Pago was a wedding feast, which was carried out with much ceremony and with the best dancing I have ever seen.

The ceremonies seemed to be for the purpose of fixing the social standing of those concerned—a thing of which the Samoans are very jealous. In Tutuila Island a man cuts no figure in society unless he has his pants tattooed on.

The Samoans have one of the strangest of strange foods, and they get that but once a year. The season came around while I was there, and I went out with a party of Samoans after palolos. The palolo is a worm that lives down in the coral reefs, and comes to the surface once a year, at a certain phase of the moon, the beginning of the last quarter in October.

It was the night of the twelfth of October when we took a boat and rowed down to the reef near the village of Utulei. At this particular reef the palolos would appear just as the moon rose over Mount Peoa, the Rainmaker.

As the rising moon lit up the sea, the surface of the water was covered with wriggling, threadlike worms that gave out

PEARL DIVERS OF TAKAROA ISLAND AT THEIR BARBER SHOP ON SUNDAY MORNING

Nearly all able-bodied Tuamotuans are pearl divers and also good sailors.

a pale-green, phosphorescent light. All about, the natives in boats and canoes were scooping them up with improvised hand nets. They ate them raw and wriggling and put them in pails to take home. In about two hours the swarm was over.

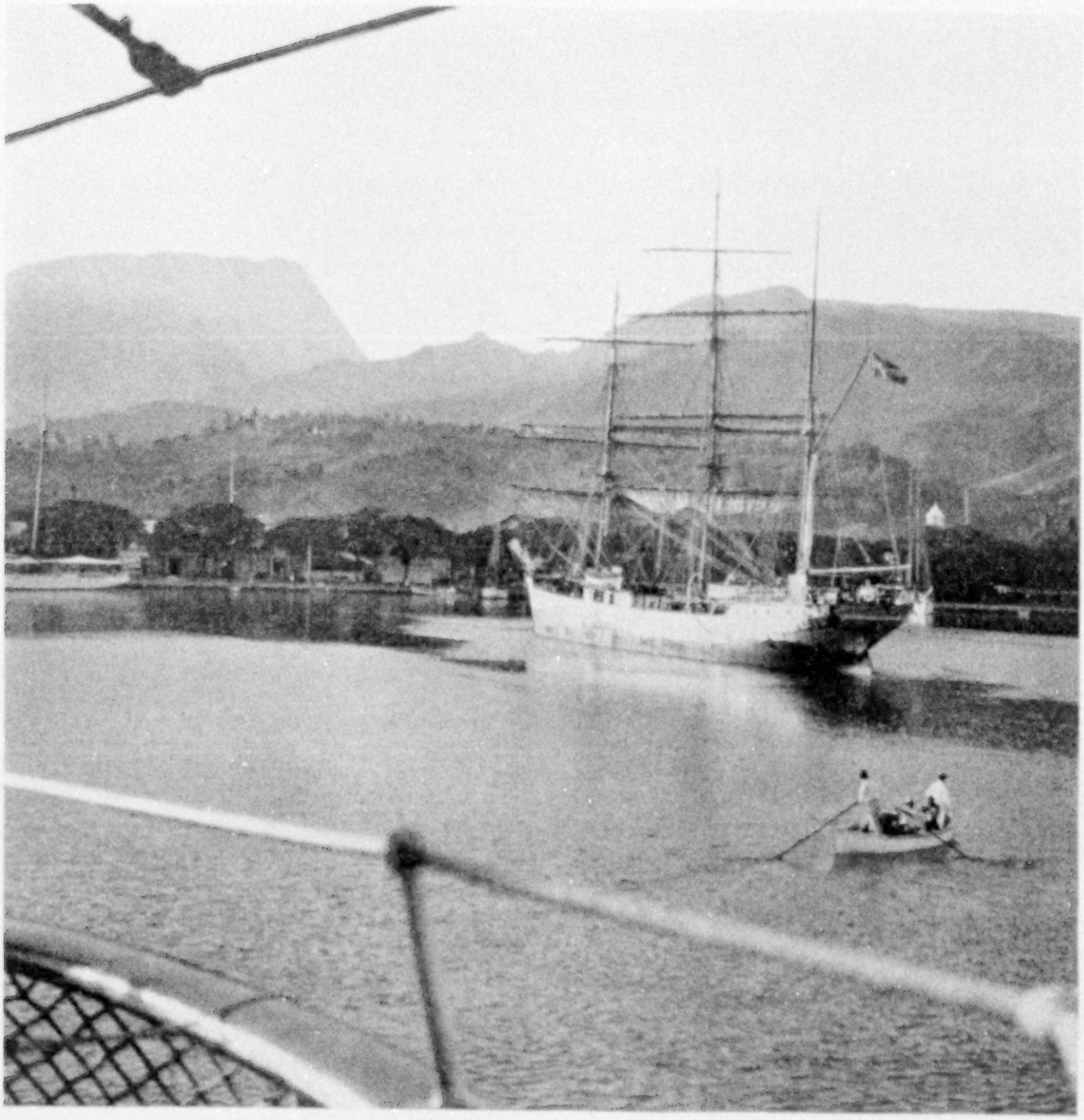
The palolo spawns at this season. It breaks in two, and that part containing the eggs rises to the surface from the coral reef where it has developed.

BOUND FOR THE FIJI ISLANDS

While in Samoa I decided to extend my cruise among the islands of the Western Pacific. I was unable to get charts of the Fiji Group at Pago Pago, and had to content myself with a small map, three by four inches in size, from a steamship folder.

I sailed from Pago Pago on October 23, 1922, and laid a course for the Fiji Islands. Along in the evening, while Tutuila Island was still in sight, a squall came sweeping down. While I was reefing the mizzen, the mainsail gybed over, breaking the boom. The worst of the blow was soon over; then I set the *Islander* on the course under jib and mizzen and went below to sleep and rest.

The next morning I went to work and fixed the broken boom with some thin boards from the lumber that I had stored in the hold. When I had finished the job, the boom seemed as strong as ever.



Photograph by Dr. Edward Burton MacDowell

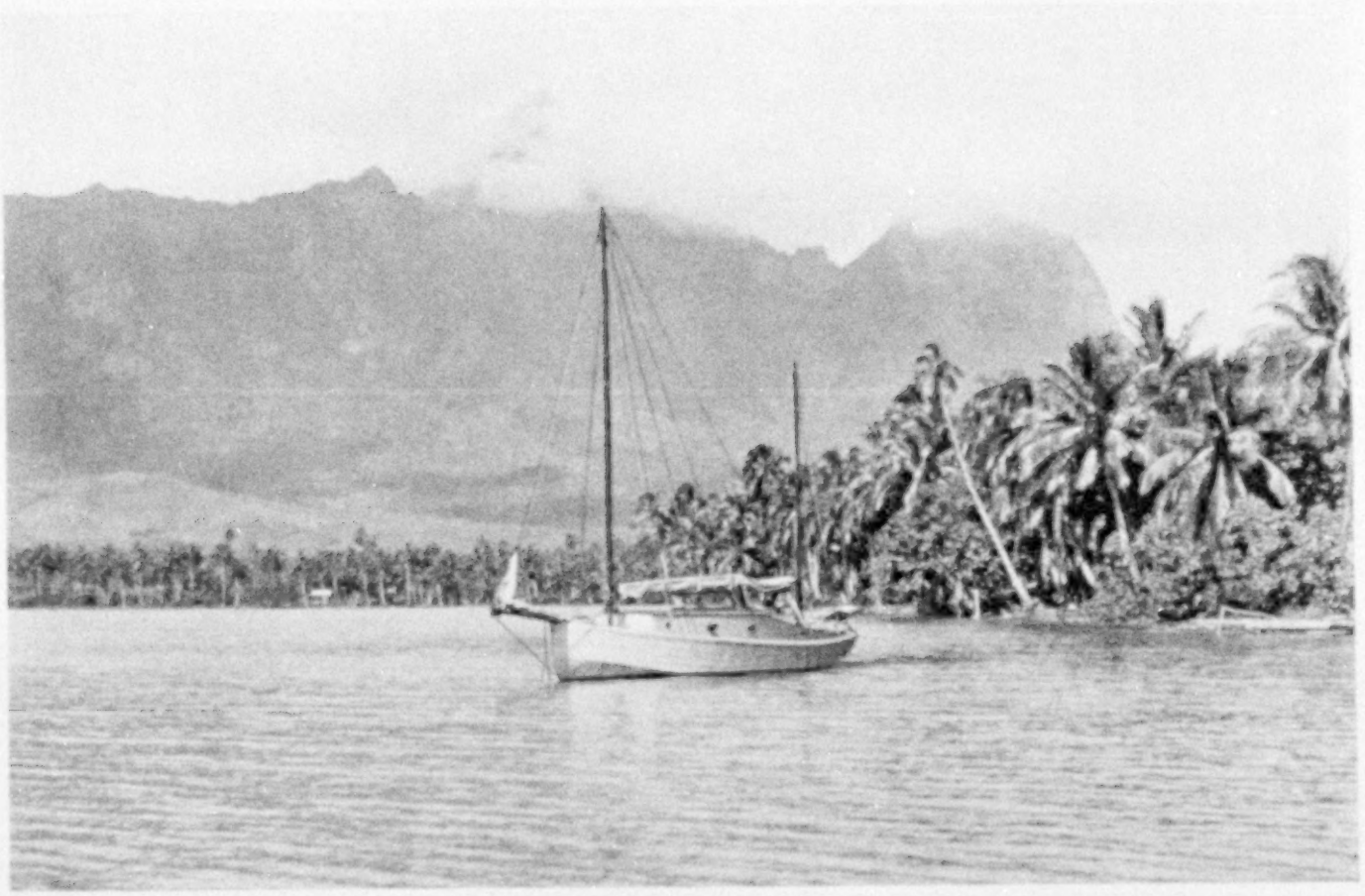
WHERE SAILORS OFTEN TAKE FRENCH LEAVE: PAPEETE AT DAWN

Two of Capt. James Cook's crew fell victims to the spell of Tahiti and had to be brought back from the mountains, where each had acquired a tattooed wife to garner his breadfruit and coconuts. Cook himself waxed enthusiastic over the "blooming beauties" of the island, his reference being to botany and not to the native belles. (See "The Columbus of the Pacific," in the NATIONAL GEOGRAPHIC MAGAZINE for January, 1927.)

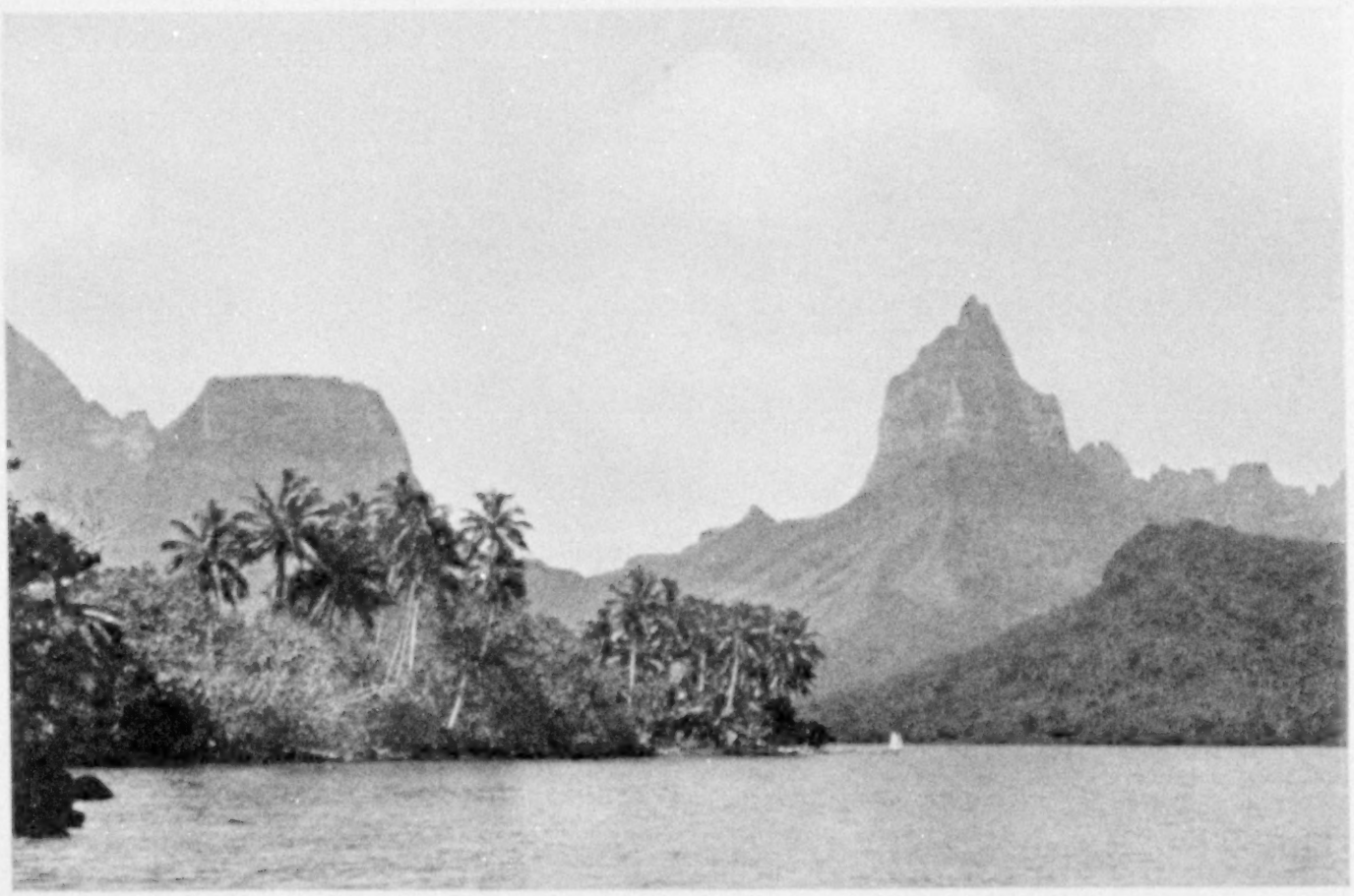
Wailangilala Island is only a reef with a few coconut trees on it, but there is a lighthouse among the trees and it is at the entrance to the Nanuka Passage, a channel through the reefs of the eastern group of the Fiji Islands. Just before sunset, on the sixth day out, I sighted the Wailangilala light. A course was set to run through the passage, and the *Islander* sailed on during the night. When morning came there were many islands in sight on either hand.

During the day I crossed the 180th meridian and sailed into east longitude (see map, pp. 144-5). Although the day before was Sunday, October 29, I wrote October 31 in my log book and had lost a day.

The Fiji Group comprises about 250 islands of all sizes, varying from mountainous masses with navigable rivers to mere sand cays with a clump of coconut trees. All are surrounded by coral reefs, and far out to sea, when the mountains on the islands grow blue in the distance,



THE "ISLANDER" AT ANCHOR IN PAOPAO BAY, MOOREA



PAPETOAI BAY TEMPTED THE AUTHOR TO ABANDON HIS CRUISE AND SETTLE ON MOOREA

Here wild pigs roam through the forest and the canebrakes, cattle graze peacefully in the green meadows, and sweet oranges to quench the traveler's thirst grow in profusion (see text, page 159).

BORABORA, A GEM OF THE SOUTH SEAS

This small volcanic island of the Society Group thrusts its lofty peak sheer from a quiet lagoon within a coconut-fringed barrier reef. The only white inhabitant of this island is a French gendarme (see text, page 159).

there are still coral reefs to be encountered.

A lighthouse is a cheerful sight when one is sailing in these coral seas; far too often the reefs are marked with a wreck. With the help of the lights at night and by keeping a close watch by day, I found my way among the islands and reefs to Suva, on Viti Levu Island.

As I came up to the southeast end of Viti Levu, night came on with mist and rain. I stood offshore and hove to. With the coming of daylight I picked up the reef and began tracing it to the westward. The mist blew away and I saw the red-roofed houses of Suva among the low green hills along the shore of the bay.

I found the passage through the reef and sailed in; then the wind died out and left me becalmed until the harbor master came with a launch and towed the *Islander* to an anchorage off the water front.

The Fijis have large areas of fertile soil, with many productive plantations. There is beautiful scenery on every hand and the native population retains many interesting customs. The adventurous traveler is well received in any British colony, and Fiji is no exception. I could have contented myself there indefinitely.

FIJI SAILORS DECORATE THE "ISLANDER"

The Fijian sailors from the trading cutters in Suva harbor came on board to inspect the *Islander* and to ask questions. The Fijians are courageous seamen, but sailing alone they did not comprehend. They said I was a *Matai*, which I understood to mean that I was one of the Ancients. Some of them wore decorations of red and blue streamers, which they took off and tied to the peak of the *Islander's* main gaff.

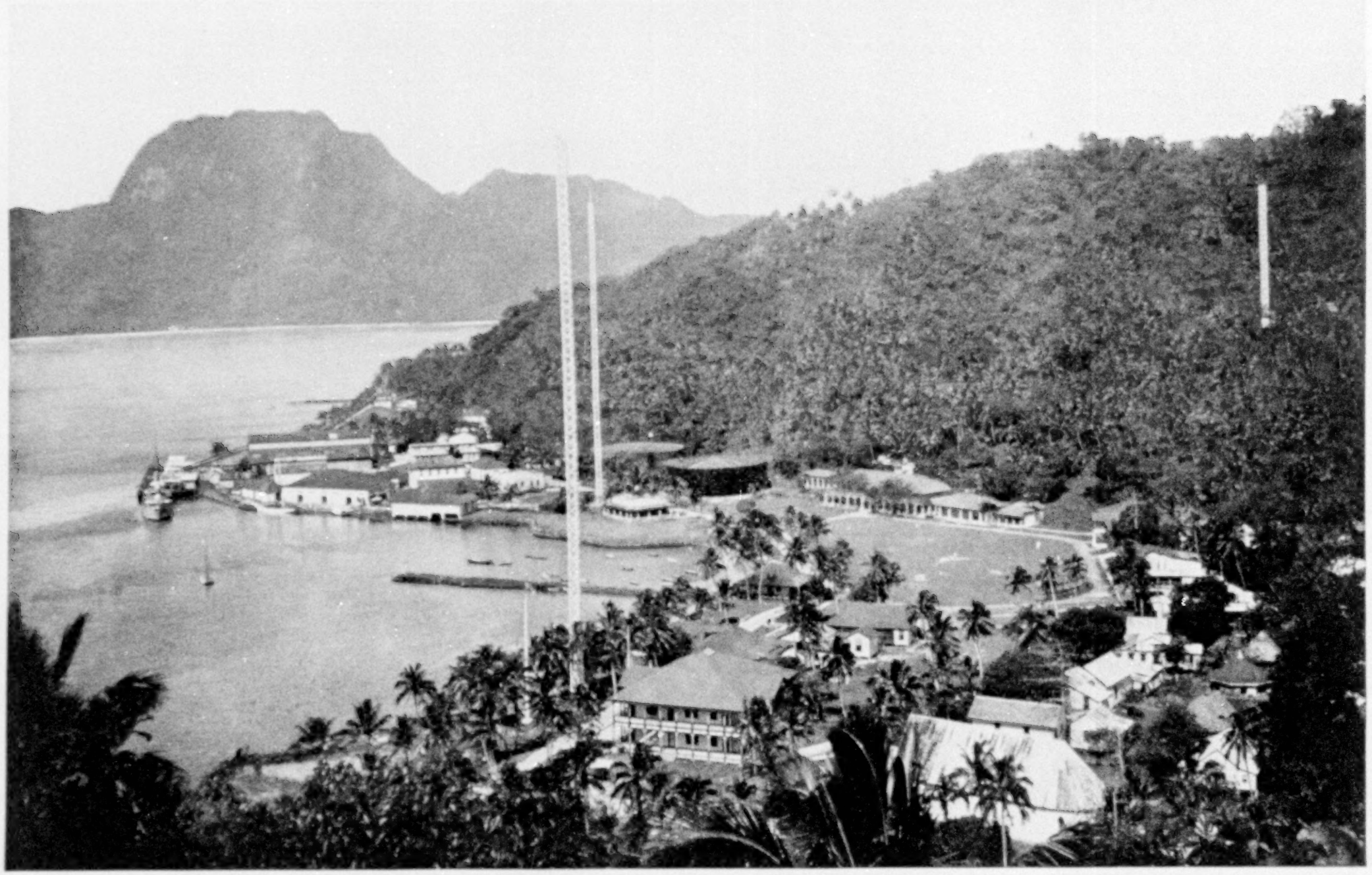
At the invitation of a hospitable resident, I took my boat up to his home on Navua River. There, while she lay tied up along the bank, in the midst of cane and rice fields, I made a new main boom and repainted her throughout (see page 173).

With the coming of the good weather season in April, I sailed for Vila, in the New Hebrides Islands. The wind was light and it was the morning of the fourth

Photograph by H. Armstrong Roberts

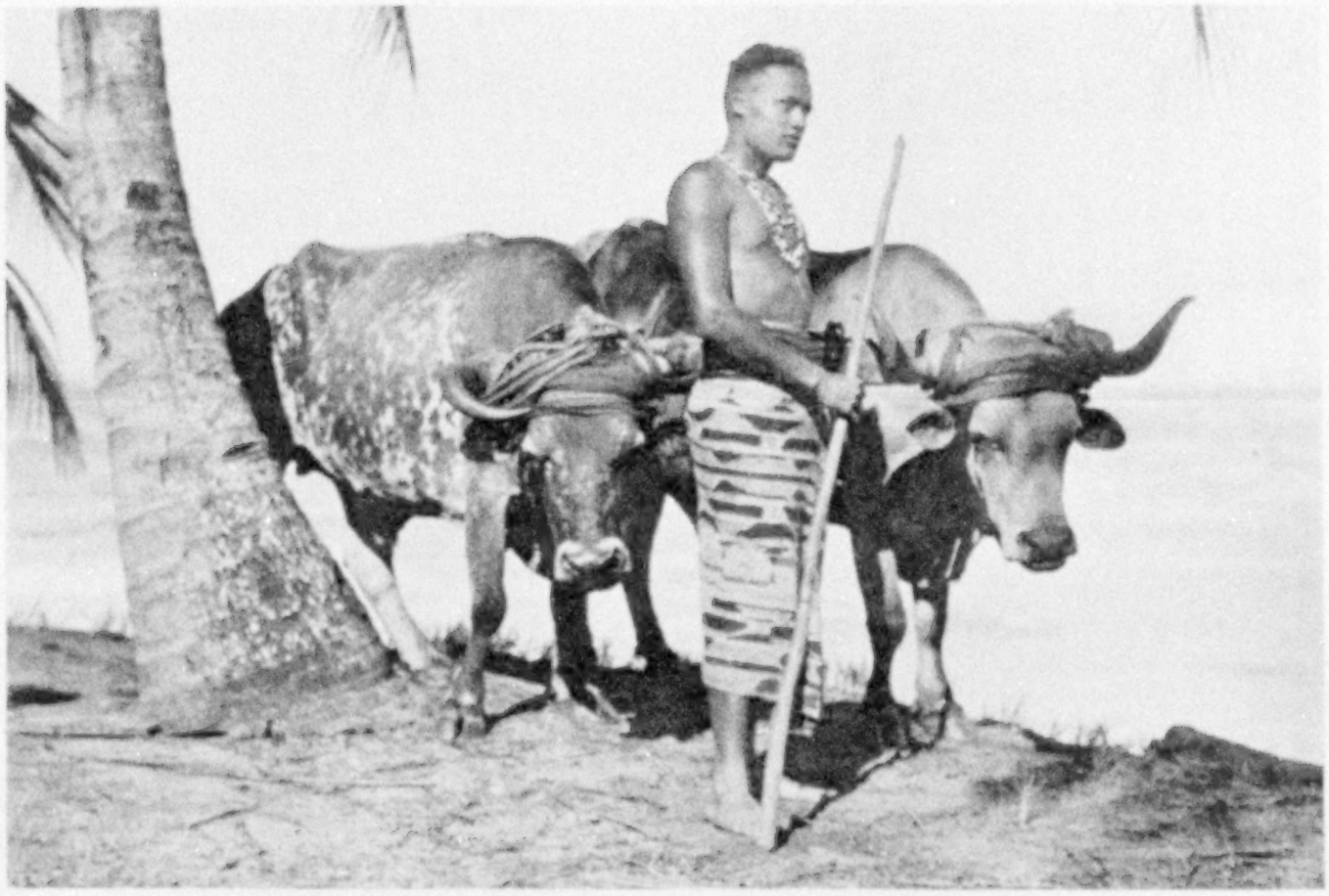
A TRITON OF SAMOA GOES FISHING

Of a light brown color and with handsome features and splendid physique, the Samoan is considered the perfect type of Polynesian. He is born to the sea and is naturally an excellent sailor, fisherman, and boat builder.



THE U. S. NAVAL STATION AT PAGO PAGO, AMERICAN SAMOA

Although missionaries made cricket popular with the Samoans, American sailors cling to their national game, and a baseball diamond (right center) is an integral part of the Naval Station grounds. The harbor at Pago Pago lies within an extinct crater, in shape much like the ankle and foot of a stocking. The Naval Station is on the "instep," its back toward the sea, but with high mountains intervening.



Photograph by H. Armstrong Roberts

THIS SAMOAN CLINGS TO HIS LAVA-LAVA

In the past, a sort of short skirt or kilt was worn by both men and women. Slight concessions in dress are made to-day when the natives are in Pago Pago or elsewhere in the presence of whites, but among themselves and in outlying districts they still wear this simple costume.

A HOME OF WINDOWS AND DOORS

The fiber mats which constitute the walls can be rolled up inside or let down to keep out wind and rain. The floor is usually a circular terrace of stones which are fitted close together and raised two feet from the ground (see, also, page 172).

A SAMOAN ARTIST PAINTING TAPA

The importation of cheap, machine-made cotton goods has caused the natives of Polynesia to abandon the laborious task of making bark cloth (tapa), so that this household art is to-day seldom practiced. In making the tapa the women of the South Seas use the bark of several trees, that of the breadfruit being especially suitable. From a sapling or branch two or three inches in diameter the bark is slit with a sharp stone into lengths of about a foot. These are then beaten until the fibers spread to great width. While in almost a pulpy state, the edges of the pieces are beaten together. The completed cloth is colored in various designs with vegetable dyes.

day out when the last peaks of Fiji disappeared.

On the eighth day out the wind came up strong, raising a rough sea. The sky cleared after sunset and the moon came up bright, making a beautiful sight, as I sat in the companionway contemplating the wonder of it all, the boat keeping the course all the while with no one at the helm. It was far into the night when I went below and slept, while the *Islander* rose and fell with the billows and sailed on into the west.

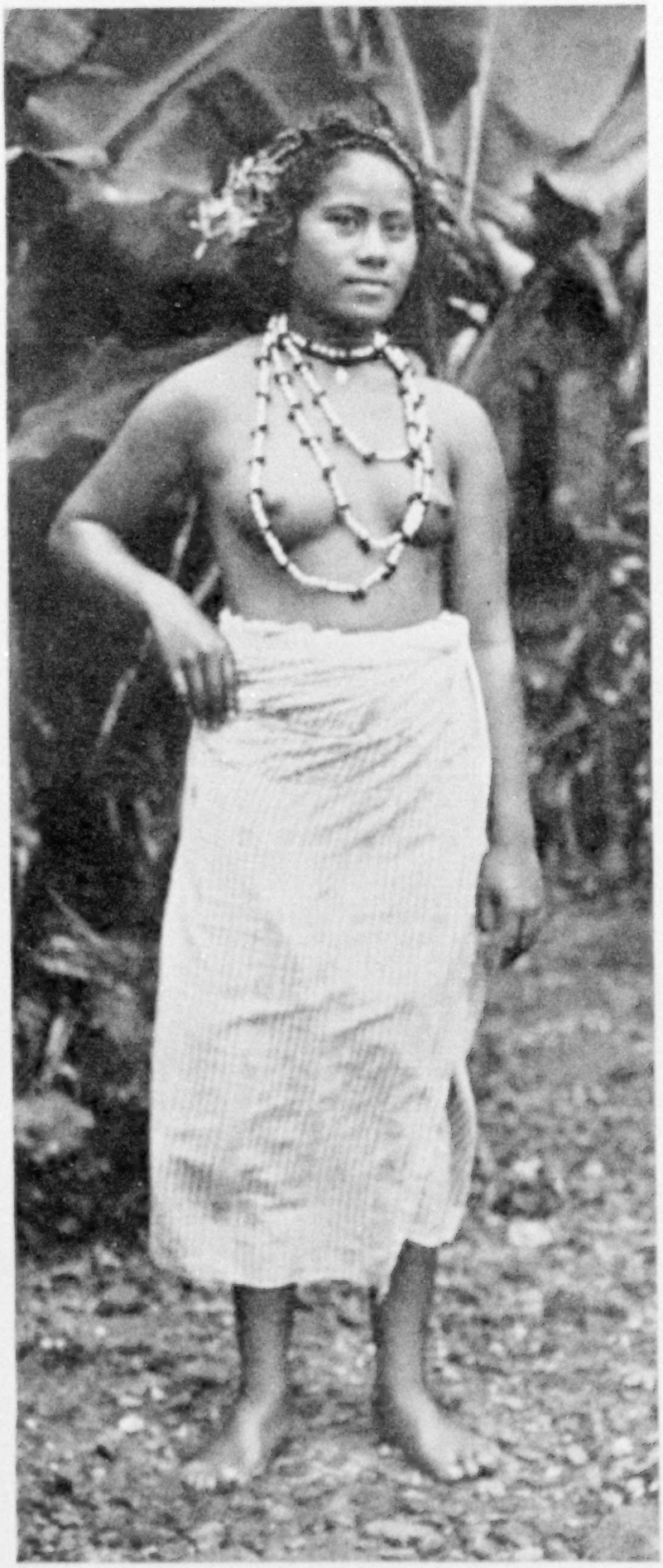
When I came on deck at daylight I saw land on the starboard bow. It was Efate Island, and far away to the south I could see the peaks of Eromanga. But the wind had fallen to a faint breeze and the sun had set when I rounded Pango Point and entered beautiful Meli Bay, where I drifted about in the quiet water all night With the morning I dropped anchor at Vila alongside of H. M. yacht *Euphrosyne*.

The scene all around was charming, and soon I had made friends—British, French, and natives. A French resident took me for a drive into the country to see his plantation. Coconuts, cocoa, and coffee were the principal crops grown, but all tropical products do well. About all the cultivation anything gets is to have the jungle and weeds cut down and the rats poisoned.

In New Hebrides, for the first time in the South Seas, I came across people suffering from malarial fever, and few of the inhabitants escape it.

LIVING ON ONE ISLAND, FARMING ON ANOTHER

Wishing to see some of the more primitive natives of the New Hebrides, a two days' sail brought me to Atchin Island,



HER ALLEGIANCE IS TO THE STARS AND STRIPES

Lithe, graceful, well formed in youth, this young woman of American Samoa may lose her beautiful figure with age, but not her cheerful, kindly disposition.

near the north end of Malekula Island.

As I came up off the shore at Atchin, a wild-looking crew dressed only in bark belts boarded the *Islander*. Their appearance was startling and they swarmed on board, grinning. Well, I grinned, too; but they were friendly and assisted me to anchor and furl the sails.

I could carry on a limited conversation with some of them. I asked one old man where he learned to talk English, and he said he had worked on a sugar plantation at Brisbane, Australia, for ten years.

The people lived and kept their pigs on Atchin, but their gardens were located on the mainland of Malekula. Each morning the women folk crossed over to work in the fields and came back at night laden with the yams that were their principal food.

A mission had been located on the island, but the people of Atchin clung stubbornly to their old traditions. They called their place of worship a *hamil*. In a clearing in the forest were set up the big wooden idols, flanked on either side with stone posts. Day and night during my stay at the island the people were holding strange ceremonies on the hamil ground (see pages 178 and 179).

At night, when lit up with the torches of the performers, the hamil was a weird, uncanny place. At such times some of the old devotees said they could see the ghosts of the dead perched on the branches of the trees round about.

On the idols were hung the jaws of the pigs sacrificed on the hamil. For sacrificial purposes the pig was more valuable if it had long tusks. For this reason the people of Atchin broke out the upper tusks of some of their pigs, when the lower tusk, being unopposed, would grow out in a curve. I saw tusks at Atchin

that had grown into two complete circles.

The New Hebrides natives grew the best yams that I have seen. Some that I procured from the Atchin people showed no signs of decay when eaten five months later.

THE "ISLANDER" SIGHTS LAND BEYOND THE PACIFIC

From Atchin Island I sailed for Port Moresby, New Guinea, running before a light east wind. As soon as I was clear of Malekula Island, a heavy swell set in from the south and a gale blew up from the east, starting cross-seas that made it uncomfortable on board.

Cooking utensils and gear broke loose and went sliding about. The large water cask shifted from its fastenings, but fire-wood and other articles jammed around it kept it from doing damage. For several days I ran under close-reefed sails; then the wind and sea went down. A light wind came up from the southeast, and I changed the course to northwest to bring up to the New Guinea coast.

Photograph by George R. King

THE BASKET MAKER SMILES FROM HER DOORWAY

Over the terrace floor (see page 168) is spread a layer of "Samoan feathers"—pebbles from the beach—to serve as a carpet. The mat does duty as a chair by day and as a bed by night.

Sunday, June 10, was a memorable day on board the *Islander*, for on that day I sighted land beyond the Pacific Ocean. Soon after sunrise low islands were seen on the starboard beam, and a few hours later the cloud-capped mountains of New Guinea appeared.

My chart of the southwest Pacific did not show local features of the New Guinea coast, and I approached the mainland beyond South Cape cautiously, looking for reefs, but saw none. For several days I sailed slowly along the shore, enjoying the scenery of the majestic Owen Stanley Range.

One morning I awoke to see two small islands astern, and whether the *Islander* passed between them or to one side I did not know. A little later I saw breakers ahead and came up to the barrier reef that from this point stretches along the New Guinea shore to the westward.

As I coasted along I could see Papuan canoes sailing in the quiet water behind the reef and occasionally a picturesque Papuan village perched on stakes above the water (see page 181).

Photograph by George R. King

SAMOAN HOUSE CONSTRUCTION

Owing to a warm climate, the Samoan likes plenty of air. He uses no nails in building his home; the parts are tied together with lengths of coconut fiber, some of which is as fine as twine (see also, page 168).

Seeing European houses on a hill, I found an opening in the reef, and after much winding about among small islands and shoals, I came up to a wharf at the head of an inlet. Here I found that I was in Bootless Inlet, where a copper mine was being opened up, and that Port Moresby was a few miles farther up the coast.

THE "ISLANDER" GOES ON A CRUISE WITHOUT A SKIPPER

I lay at anchor while I rested and had a good sleep. The next morning, after getting a little information, I beat out of the inlet and sailed along in the quiet water behind the reef and came to anchor at Port Moresby (see page 181).

Port Moresby is built on a wind-swept peninsula and is quite healthful, but at its back door is a region where the clouds and mists hang continually, and the people coming in from the outlying districts complained of fever.

Near by is the village of Hanauabada, whose natives are a maritime people. Their racing canoes may be classed among the swiftest racing craft in the world, and much cash changes hands among the white residents of Port Moresby over the results of the contests (see page 182).

I had rather an unpleasant experience

THE "ISLANDER" AND THE "TASMAN" IN NAVUA RIVER, VITI LEVU ISLAND

One hundred and fifty-six members of the National Geographic Society in the Fiji Islands will read with interest of the author's visit to their archipelago.

at Port Moresby. I had been spending the evening ashore with friends, entertaining them with photographs and listening to tales of savages and cannibals.

I started for my ship at about 11 o'clock, thinking what a wonderful thing it was to be alive. It was a dark night and the wind was blowing a gale right offshore. I got in my skiff and rowed out in the darkness, but there was no *Islander*. She had gone on a cruise by herself, leaving me on the beach with only a book of photographs under my arm!

I spent a most uncomfortable night, but the next morning we found her anchored out to a reef. Apparently she had got by the reef without striking, but the anchor had hooked in the coral. When we pulled in the anchor, we found the stock broken out, which probably explains why the boat went adrift.

From Port Moresby I sailed along the New Guinea shore and anchored the next day at Yule Island, in Halls Sound. It would have been a pleasure to linger in this wonderland of beautiful scenery and strange people, but I was expecting letters at Thursday Island; so, after a few days, I sailed out of Halls Sound and stood away for the Bligh Entrance to Torres Strait.

I sailed from Yule Island on July 1. The day was fair, with a light wind.

One wishes for good weather when passing through Torres Strait,* and at

* See, also, "Geography and Some Explorers," by Joseph Conrad, in the NATIONAL GEOGRAPHIC MAGAZINE for March, 1924.

A BANANA MARKET ON THE NAVUA RIVER

THE WATER FRONT AT SUVA, CAPITAL OF THE FIJI ISLANDS

At the left is the floating native market. On the rolling hills which encircle the harbor, 1,500 Europeans make their homes.

this time of the year might expect it, but on the second day out the sky clouded up and the wind blew hard, raising a choppy sea in the shallow waters. I ran on under shortened sail, keeping a close watch for Bramble Cay and Darnley Island, but missed them in the darkness.

Morning came with mist and rain, and for most of the day I was lost in a maze of reefs and sand cays. I had a chart of Torres Strait, but the weather was too thick for me to see the landmarks.

Later the mist lifted and I made out my position to be between Bristow Island and the Warrior Reefs, but night was coming on when I began to beat out to gain the open water to the eastward, and Bristow Island and the sand cays faded out in the darkness. At 2 o'clock I hove to, but all night long I listened for the sound of breakers.

A BASKET OF FRUIT PRESENTED TO THE AUTHOR BY A FIJI CHIEF

While these dawas, which resemble dark blue plums, were very palatable, Captain Pidgeon says that he did not eat the entire basketful at one sitting.

July 4 dawned with no land in sight, and off in the southeast a rain squall was approaching. I headed off to the south, looking for islands. Eventually I saw coconut trees showing through the mist and came up to Dalrymple Island.

At noon I anchored in the lee of Rennel Island and made the acquaintance of Tom Savage and his family. They owned the island and turned out the best it afforded for me. I was tired with constant watching and the loss of two nights' sleep, so I lay all the next day and rested. When I was ready to sail, the islanders gathered sweet potatoes, green corn, and pumpkins for me to use on my journey.

For two days more I sailed around among islands and reefs, on a wet, choppy sea, and came to Thursday Island. That same day the sky cleared, and for the rest of my stay in Torres Strait the weather was fine.

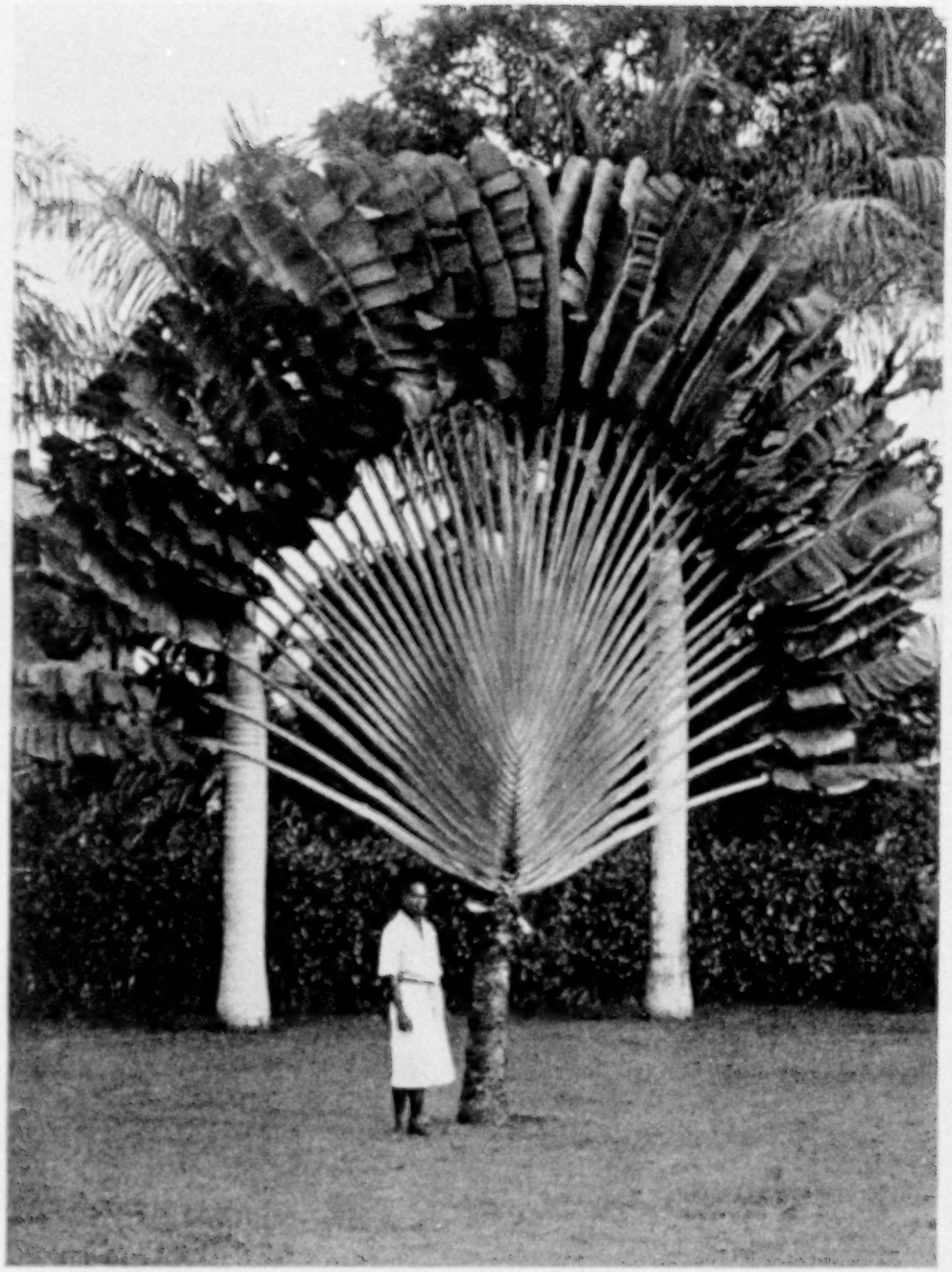
DECIDES TO CIRCLE THE GLOBE

At Thursday Island I decided to return to California by way of the Cape of Good Hope and the Panama Canal.

The *Islander* was in need of repairs and paint, for she had scraped on many a reef since coming off the ways in the Fijis. I moved over to a quiet cove in the lee of Prince of Wales Island, beached the boat with the spring tide, and went to work.

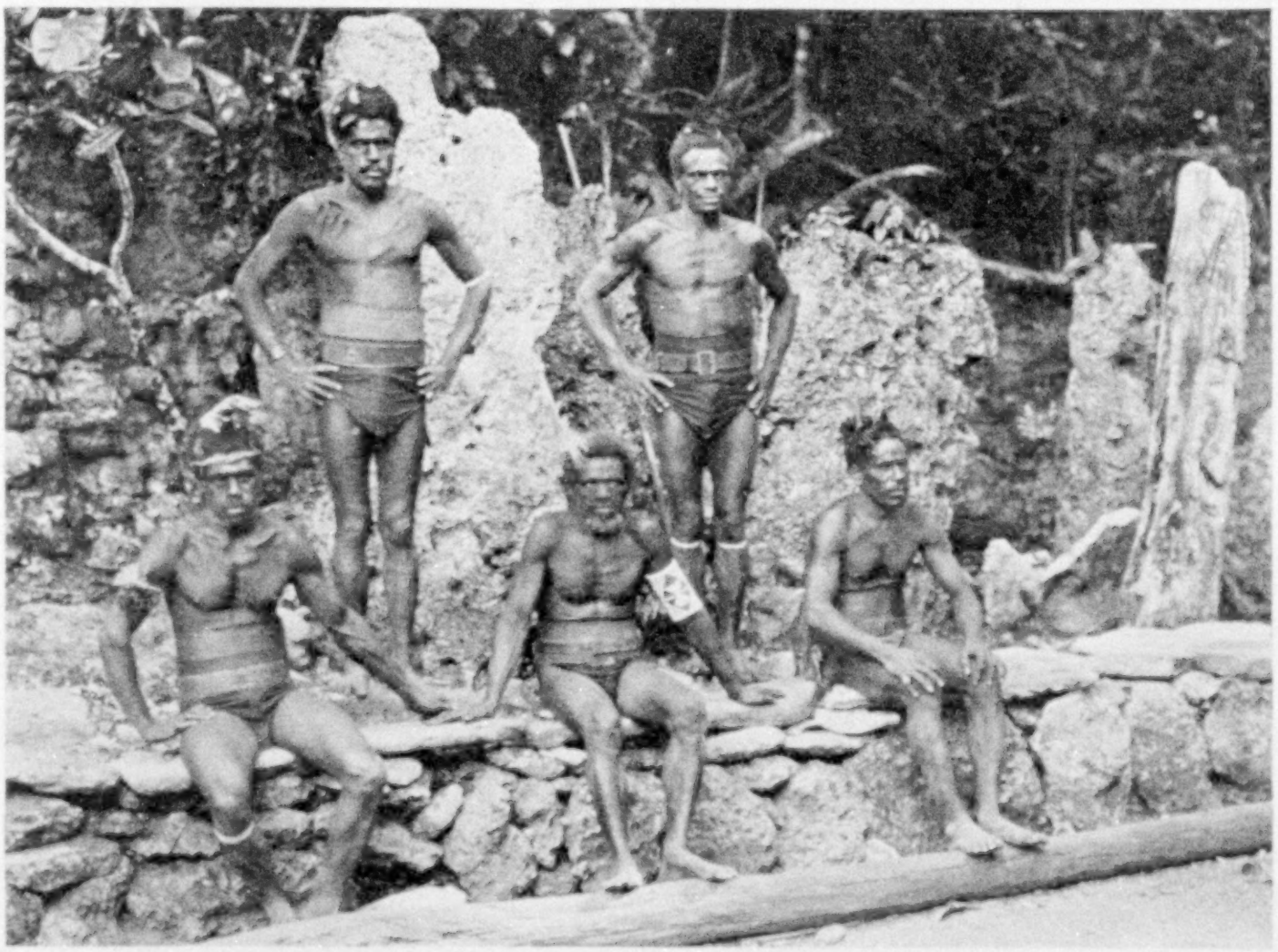
FIJIAN HOMES

While the climate of the Fiji Archipelago is similar to that of the Samoan Islands, the dwellings here differ radically from the open, airy structures found in the more easterly group (see illustrations, pages 168 and 172).



THE TRAVELER'S PALM, A PLANT NATIVE TO MADAGASCAR, TRANSPLANTED TO THE FIJI ISLANDS

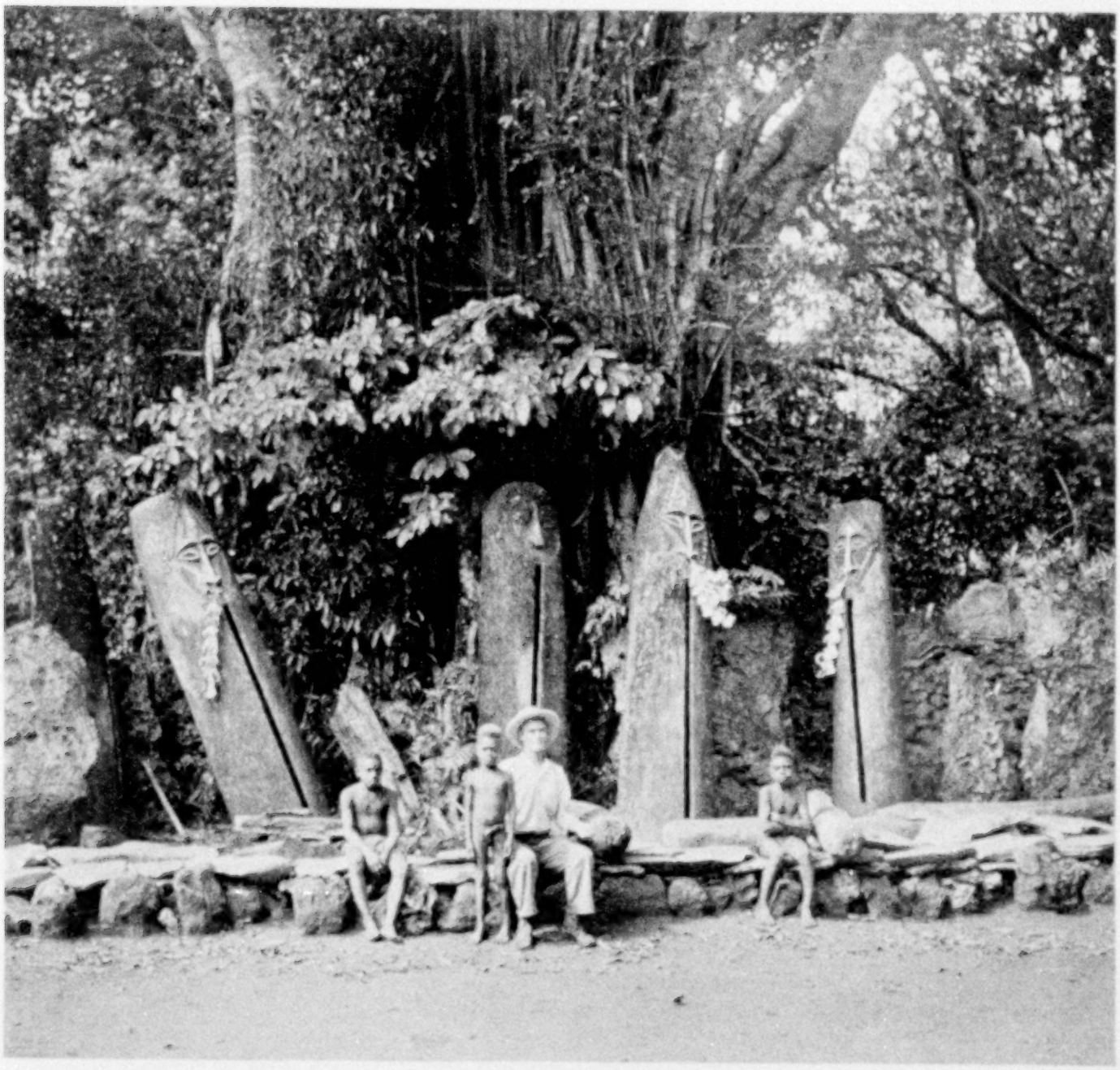
FIJI GIRLS OF MBENGHA, A SMALL VOLCANIC ISLAND LYING SOUTH OF SUVA, VITI LEVU



MEN OF ATCHIN ISLAND ON A HAMIL GROUND (PLACE OF WORSHIP)

TRANSPORTING THEIR GODS: NEW HEBRIDES

These natives of Atchin, an islet near the north end of Malekula Island, are dragging in an idol to set up on their *hamil* ground (see above). Note the muscular development of these men.



THE JAWBONES OF SACRED PIGS FESTOON THE WOODEN IDOLS OF ATCHIN

During his stay in the New Hebrides the author witnessed a weird ceremony at this place of worship (see page 170).

With a piece of ironwood spiked on the keel, a little cement, and a good coat of copper paint over all and the *Islander* was as fit as ever. I also cut a supply of firewood for my cookstove. There were bees in the tree that I cut for wood and I had honey. The bees were very small and stingless. They stored their acid-sweet honey in small round cells that much resembled fish eggs.

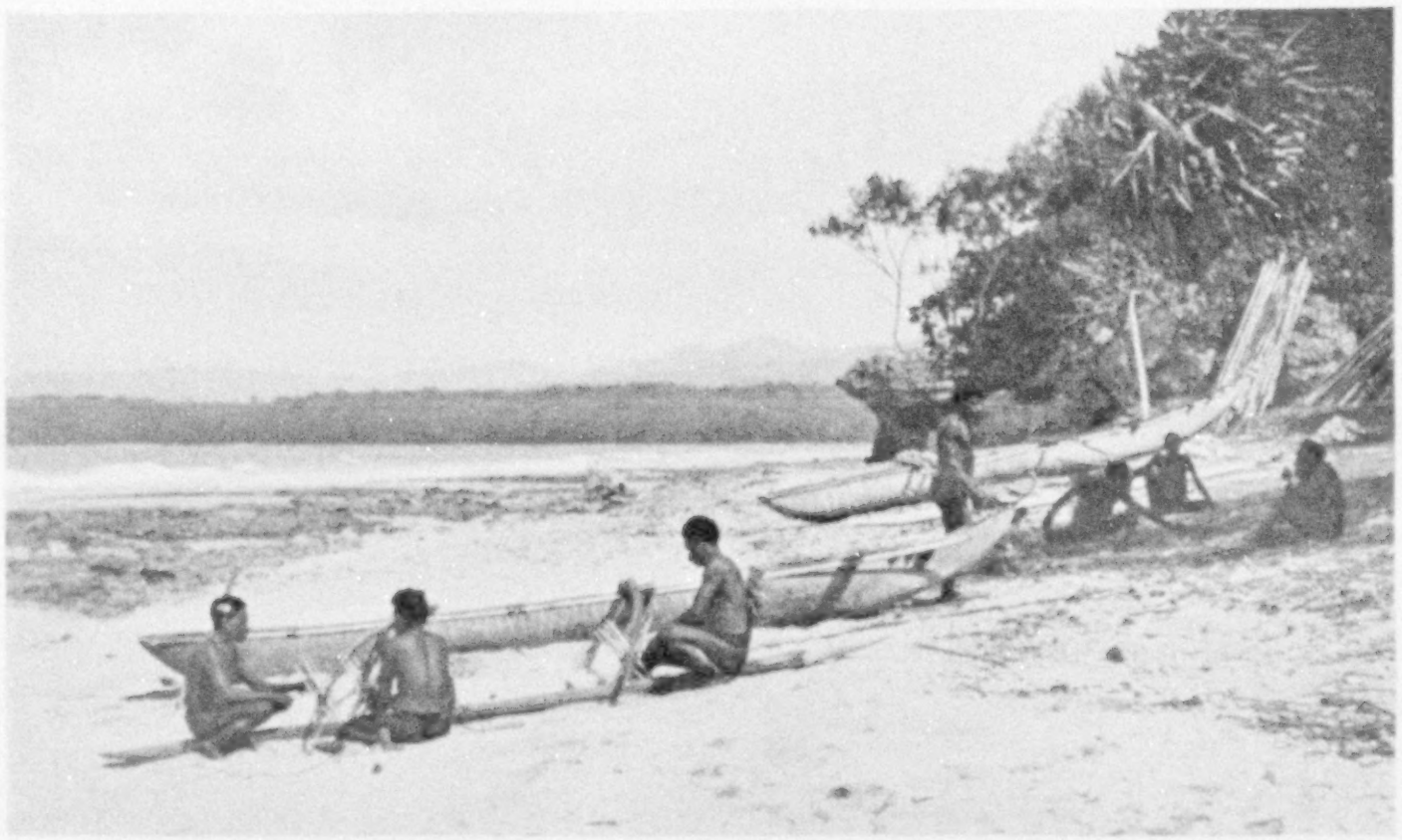
OFF LIKE A WILD BIRD INTO THE INDIAN OCEAN

On August 7, 1923, I sailed from Thursday Island. It was after 3 o'clock when all was ready for sea. A half gale was blowing, and I thought of waiting over for another day, but the *Islander* was ready and impatient to take her first plunge into the Indian Ocean; so I up with the anchor, and she was off like a wild bird!

The tide was against her, but, running before the wind, she passed Booby Island before sunset. When darkness came on, I took down the mainsail and slept, while the boat drifted out on the Arafura Sea.

For several days I sailed before a light east wind, through green water, where many sea snakes swam about, and each night the sun set in a red haze that was drifting out from Australia.

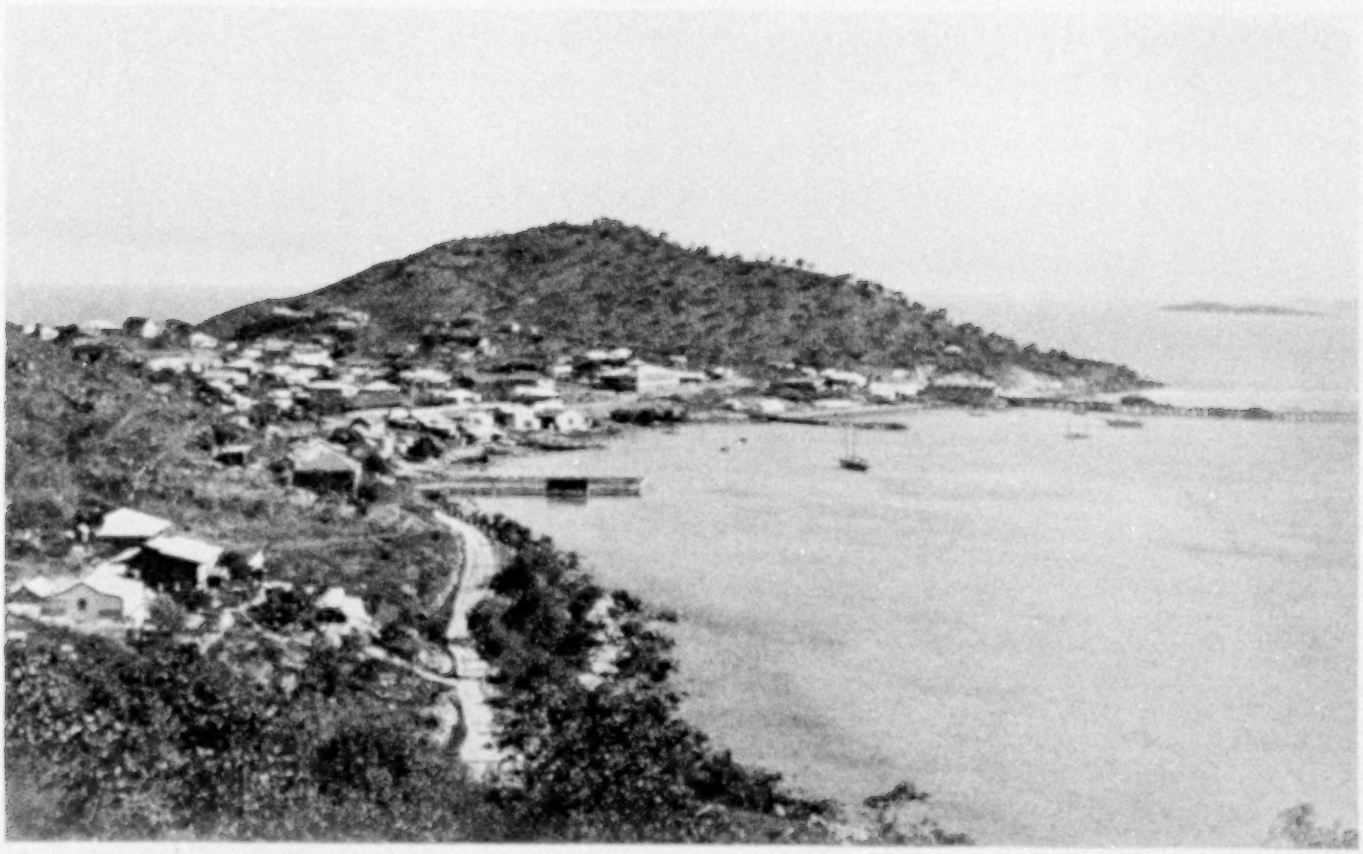
As the sun was setting on the tenth day out I sighted Timor. For two days I coasted along this great island, which is more than 250 miles long, and high and



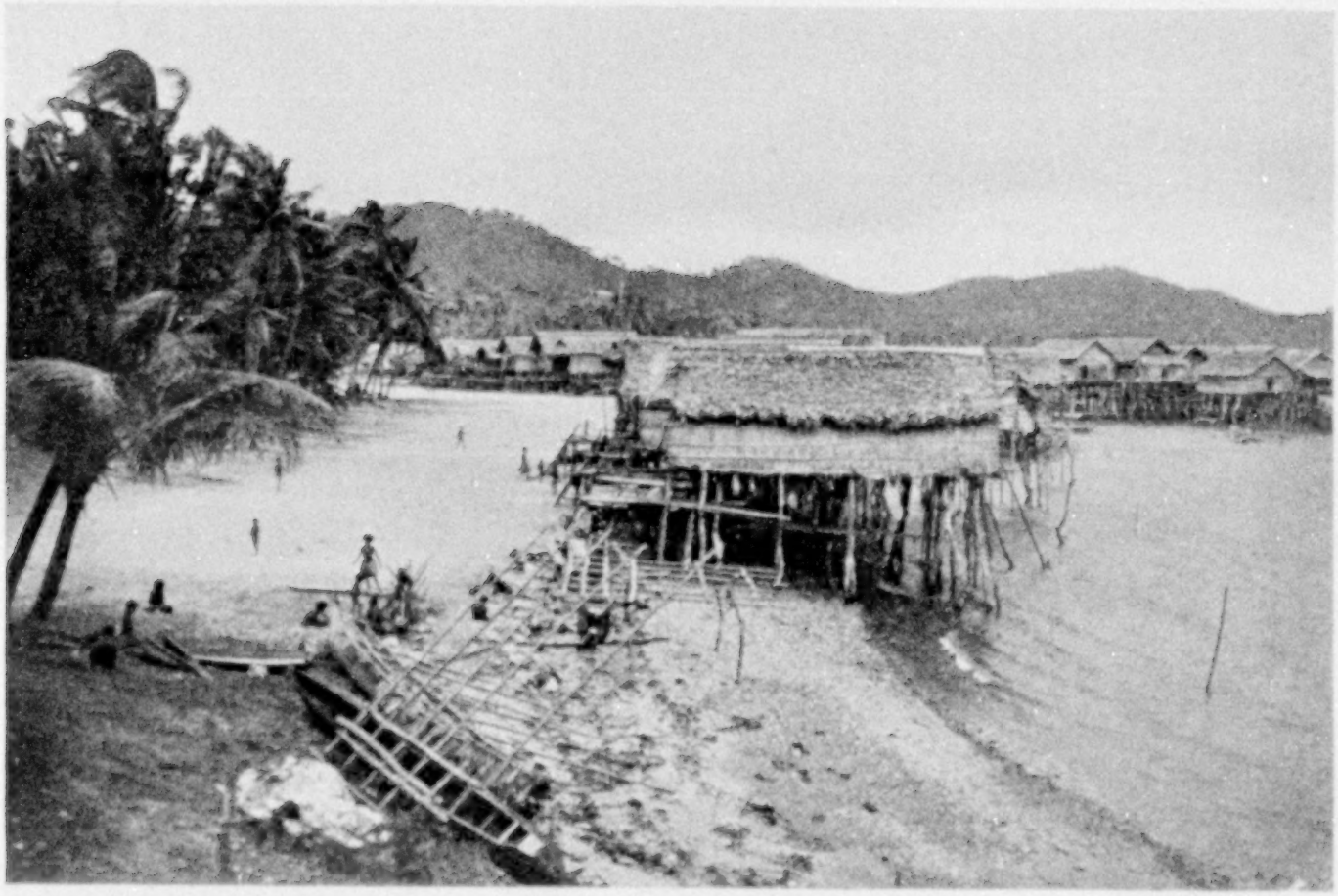
BOAT MAKING IN THE NEW HEBRIDES

PIGS ARE BRED FOR THEIR TUSKS BY NATIVES OF THE NEW HEBRIDES

The upper tusks are broken out; then the lower tusks, having nothing to oppose them, grow out in a curve, enter the jaw, and come out again. This pig's tusks have completed one full turn and have a good start on a second turn. When the pig has been sacrificed before the idols, its jaw will be preserved in the hamil ground (see illustration, page 179).



PORT MORESBY, METROPOLIS OF NEW GUINEA



A VILLAGE ON STILTS

More than half of the great island of New Guinea, which, next to Greenland, is the largest on earth, is now under the jurisdiction of the British Empire. The Australian Government is exercising a mandate from the League of Nations over that portion of the island formerly known as German New Guinea.

THE SAILING CANOES OF NEW GUINEA ARE AMONG THE SWIFTEST WIND-BORNE CRAFT IN THE WORLD

Boat racing is one of the chief diversions at Port Moresby, and the white residents wager considerable sums on the outcome of such contests.

THE HUSBANDS OF NEW GUINEA BELIEVE THAT IN UNION THERE IS STRENGTH

In many of the villages the married men live apart from their families, in great community clubhouses like the one in the center of the picture. Each man is assigned an apartment that corresponds in size and location to his wealth in trophy skulls. Since no woman ever dares to enter these buildings, there is no danger of the gruesome treasures they harbor being disarranged during house-cleaning activities.

NEW GUINEA CARPENTER MAKING A MODEL CANOE

This young woodworker has the advantage of the enlightened man's tools—note the hammer.

mountainous throughout. Portugal owns the eastern, the Netherlands the western, part.

I had no chart of the region, but I found my way through the Strait of Semao and came up off Koepang, the port of Dutch Timor (see page 186). At this quaint place I rested for a week, laid in a supply of fruits and vegetables, and then sailed for Christmas Island. The wind was fair out of Koepang Bay, but I drifted by the islands to the west, almost becalmed; then I met the southeast trade wind and sailed away.

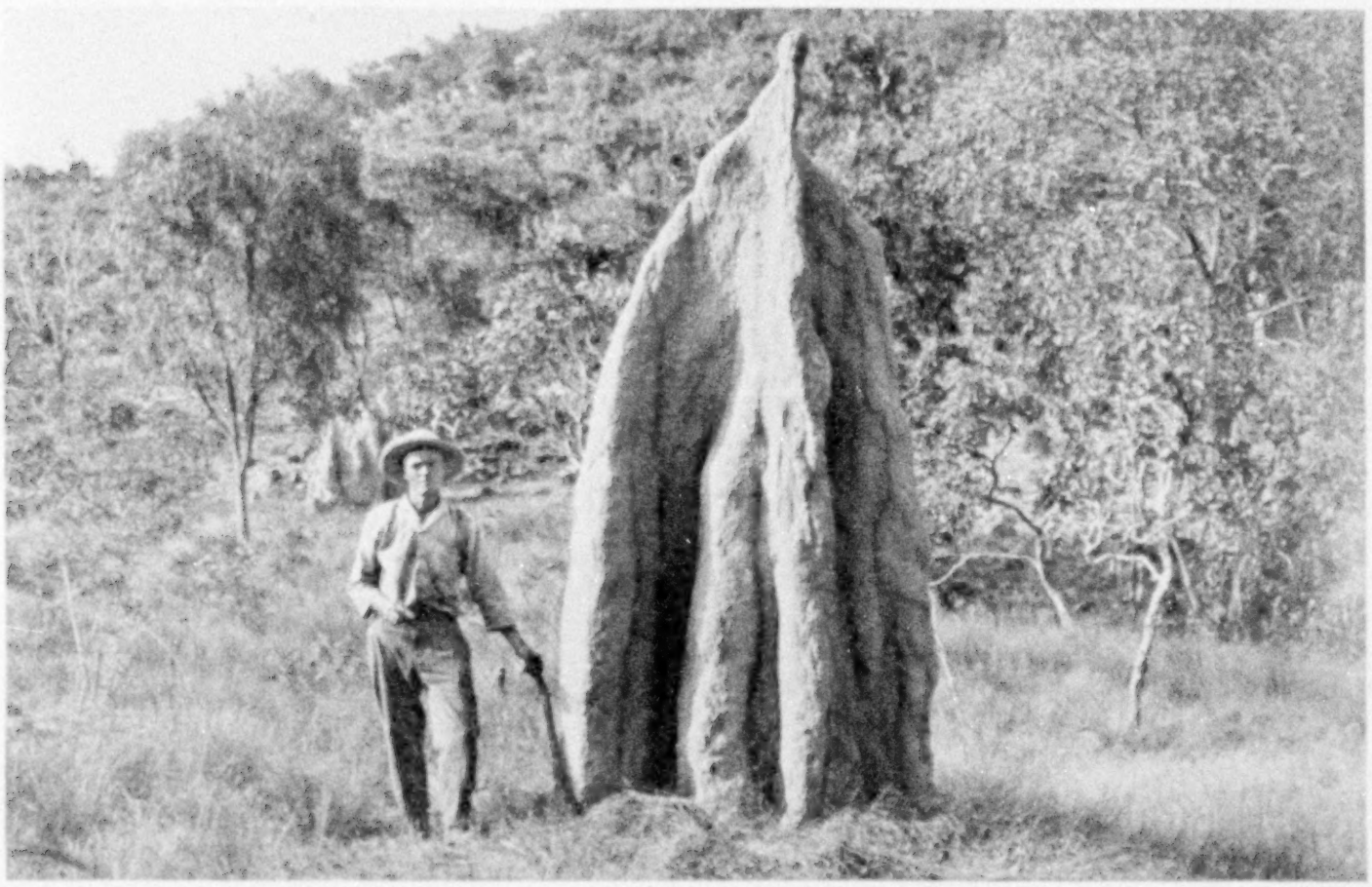
For several days the trades were light, and the *Islander* sailed leisurely on to the west, helped by a westerly set of the current. It was at such times that I felt the monotony of being alone, but occasionally something of interest occurred to attract the attention.

A WHALE COMES ALONGSIDE

One evening, at dusk, when the silence seemed almost painful, a whale rose to the surface and spouted close alongside the *Islander*. The deep, long-drawn-out sound of his breathing was startling and the proximity of this great creature gave me a feeling of awe. However, all of these mammals, so far as I have observed, travel very leisurely when not alarmed, and it seems reasonable to suppose that they become aware of the presence of anything in their path in time to avoid coming into collision with it.

In these latitudes the phosphorescent sea sometimes takes on a very strange appearance at night. Once, when the water was quite smooth, the whole expanse resembled a plain of snow, over which the *Islander* glided like a phantom ship.

But one morning the wind was blowing fresh and strong. Soon after sunrise I sighted the outlines of Christmas Island among the clouds ahead. As I came into Flying Fish Cove I was surprised to see a steamship at the pier, decorated with bunting from stem to stern. A pilot came off and made my boat fast to a buoy, and then invited me to come on board the



AN ANT HILL ON PRINCE OF WALES ISLAND, TORRES STRAIT

Islander, for, strange enough, the name of the ship was the same as that of my little craft. The steamer belonged to the company that was working the phosphate deposits on the island, and a party was being given on board. I had arrived just in time for dinner.

Christmas Island is of raised coral formation, standing more than 1,000 feet above the sea. It is covered with a dense forest. Many land and sea birds make the island their home, and there are land crabs here with claws that will break open a coconut. The whole island is under lease to the company operating the phosphate plant (see page 187), and several of the European employees had their families with them; hence the merry party on board the steamer *Islander*.

I spent five happy days with the people of the island, and sailed well supplied, through the generosity of the manager. The sun was setting as I made sail, and my hosts, who gathered on the pier and watched the *Islander* glide away in the dusk, no doubt thought me strange indeed to sail at that hour.

When I had finished plotting my position from observation of the sun on the fifth day out, I began watching for the Cocos Islands (see page 188). At half past 1 o'clock the tops of coconut trees were showing above the sea, and all around myriads of birds were busy fishing.

WHERE THE "EMDEN" ENDED ITS SPECTACULAR CAREER

Cocos or Keeling Islands, about 20 in number, are scattered along a coral rim of horseshoe shape inclosing a lagoon about nine miles long, with an opening to the north. Capt. J. Clunies Ross took possession of them in 1827, and they are still owned by the Ross family, which owns Christmas Island as well.

On Cocos Islands is an important cable station of the Eastern Extension Telegraph Company. A large staff of operators is employed in relaying messages across the wide expanse of the Indian Ocean. Exiles they call themselves.

When the *Islander* arrived they were having a run of visitors, as a short time previously a small craft, the *Shanghai*, in which three hardy adventurers were making a voyage from Shanghai to Denmark, had made them a call. They had thought the *Shanghai* a small boat with a

LOOKING OFFSHORE FROM KOEPANG, TIMOR, DUTCH EAST INDIES

Note the outrigger construction of the sailing craft in the foreground.

small crew, and were very much surprised when the *Islander* came in single-handed from America.

I was well entertained and my hosts were interested in the story of my voyage, while I was no less interested in hearing them tell of experiences in some odd corners of the world.

THE SCENE OF THE "EMDEN'S" LAST FIGHT

During the World War the German cruiser *Emden* sent a landing party ashore at Cocos to destroy the cable station. Before they finished their work the Australian warship *Sydney* came up and drove the *Emden*, a battered wreck, onto the reef at North Keeling Island.

When the German landing party saw the fate that was overtaking their vessel, they took possession of a small ship belonging to the governor and made their escape. He recompensed himself by salvaging the valuable material from the wreck of the *Emden*, and when I visited the islands the brass and bronze of the wrecked warship were being turned into boat fixtures in his shipyard.

On the afternoon of September 23 I sailed on the long, long run down the Indian Ocean from Cocos Island to Rodriguez. A good breeze was blowing as I cleared the islands and reefs; then a dark, ominous cloud came rolling along from the southeast. The *Islander* drove off to the west before a gale, and I lost sight of the islands in the blinding rain.

THE SHIP SAILS ALONE WHILE THE MASTER STAYS BELOW

For several days the weather was stormy, with a rough sea, and I did not feel well. With only the jib and reefed mizzensail set, the *Islander* sailed on day and night, while I stayed below out of the wet. Under this short sail, in one night, from sunset to sunrise, the vessel covered 70 miles; but I was being tossed about too much to sleep well.

It was on such days as these, after enjoying myself with friends on shore and then sailing into gloomy weather, that I felt the solitude. But the first few days were the worst; then I began to look forward to my arrival at some new land and to speculate on what it would be like and whom I should meet there.

THE PHOSPHATE QUARRY ON CHRISTMAS ISLAND

This flat summit of a submarine mountain, rising 15,000 feet from the floor of the Indian Ocean, was uninhabited when Europeans arrived, 30 years ago, and discovered its phosphate deposits, which are worked in much the same fashion as those on Nauru. (See "Nauru, the Richest Island in the South Seas," in the NATIONAL GEOGRAPHIC MAGAZINE for December, 1921.)

There was a week of stormy weather, and then the trade wind fell light and at times I was almost becalmed.

A BOMBARDMENT BY SQUIDS

One day, when the *Islander* was sailing along before a good breeze, a school of small squid came on board from aft. They passed my head as if shot out of a gun, striking the sails and rigging with such force as to knock off the heads of some.

They were evidently trying to escape an enemy that was pursuing them in the water, and took to the air in an effort to elude their pursuer. I was very much astonished, as I had never heard of squids taking to the air like flying fishes, and I do not think this fact is generally known to the layman. Later I observed many of them. They dart from the water with great speed, and as they leave the surface they eject a stream of water behind. They do not glide so far in the air as the flying fish, nor is their flight as well directed.

On the evening of the twentieth day out a blue peak was seen in the west. Early the next morning I reached the island of Rodriguez, and while I was looking for a channel through the reef a picturesque old pilot came out and directed me to an anchorage in the inner harbor (see page 189).

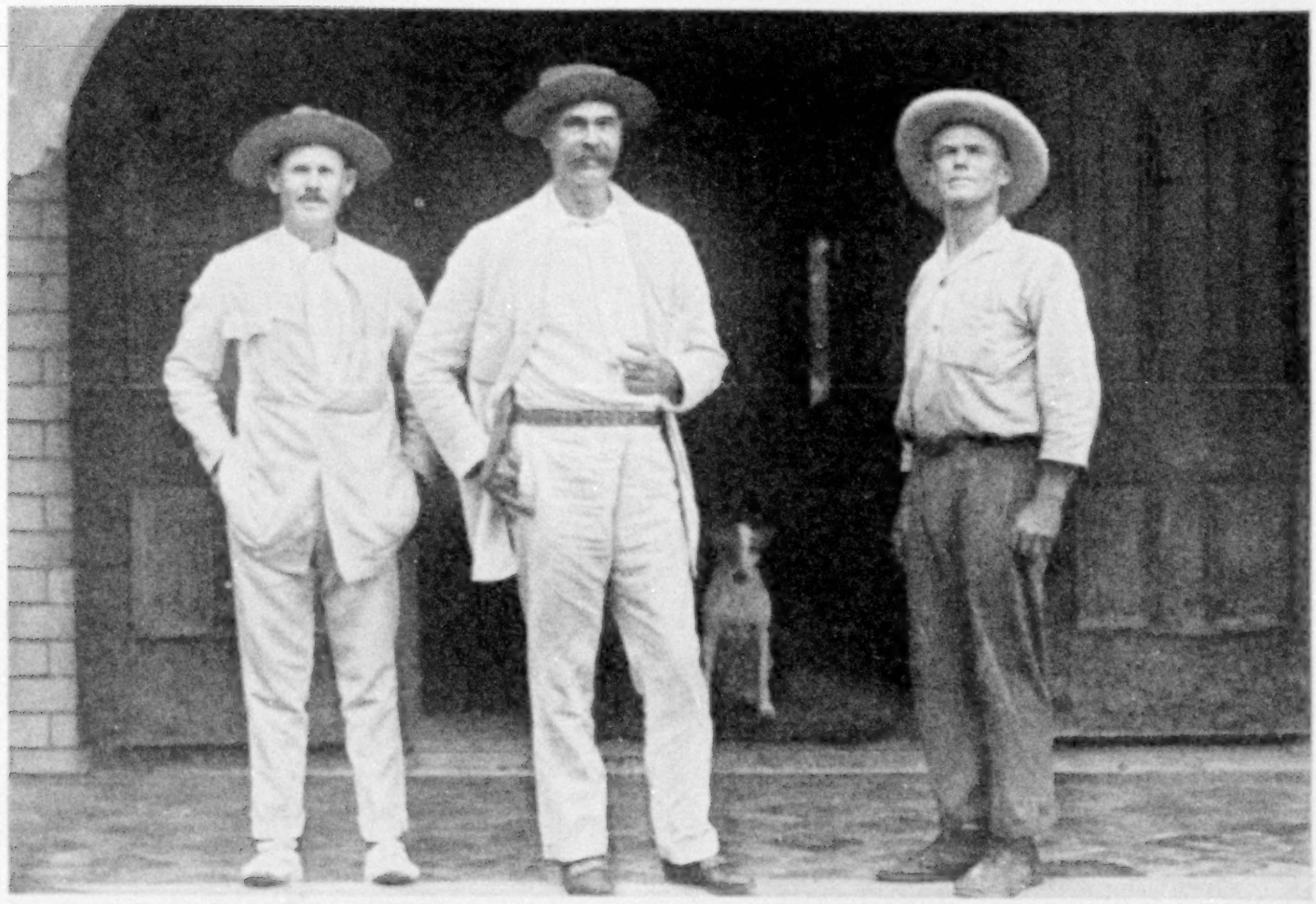
Rodriguez is a small mountainous island surrounded by reefs that in places extend more than four miles offshore. It supports a population of more than 7,000 inhabitants by fishing and agriculture, though I did not see an animal-drawn vehicle on the island.

This is one of the happiest of isles, where the people live in great simplicity. The cable station adds greatly to the importance of the place, and the members of the staff exerted themselves to make my stay pleasant.

Before the gentlest of winds I sailed from Rodriguez. On the second day out I crossed a meridian halfway around the world from my home port. After four days of light weather, the wind breezed up and blew hard, with rain, sending the *Islander* flying down to Mauritius.

MOST MALAY CHILDREN ARE AT HOME ON BOTH LAND AND SEA

Among the islets of the Indian Ocean known as the Cocos, or Keeling Group, Charles Darwin found his "typical" example of an atoll, or lagoon island. There is an important cable station on the principal islet, and it was here that the famous German raider *Emden* was destroyed during the World War (see text, page 186).



THE GOVERNOR OF COCOS ISLANDS (CENTER) IS A LINEAL DESCENDANT OF THE SCOTSMAN WHO SETTLED HERE WITH HIS FAMILY A HUNDRED YEARS AGO (P. 185)

The author is on the governor's left. The only export from the Cocos Group (except relayed cable messages) is coconuts, and one of the commonest of living creatures is a gigantic crab which feeds on the nuts.

The people of Mauritius took a great interest in my voyage, and scarcely a day passed without someone showing me some special kindness. Mauritius is a beautiful place and I had many opportunities of seeing it. Friends came with motor cars to show me about, and I was given a pass over the Mauritius Railway.

I spent a month amid pleasant surroundings and would have lingered, but with the coming in of December the people began to talk of hurricanes, and it was time for the *Islander* to sail again.

On the fourth of December I put to sea. When night came on, the wind fell light, and Mauritius was still in sight at the end of the second day. It was the third day when I drifted by Reunion Island, a remarkable body of land that rises from the Indian Ocean to a height of more than 10,000 feet. I longed to go ashore, but the season of hurricanes bade me hurry from these latitudes.

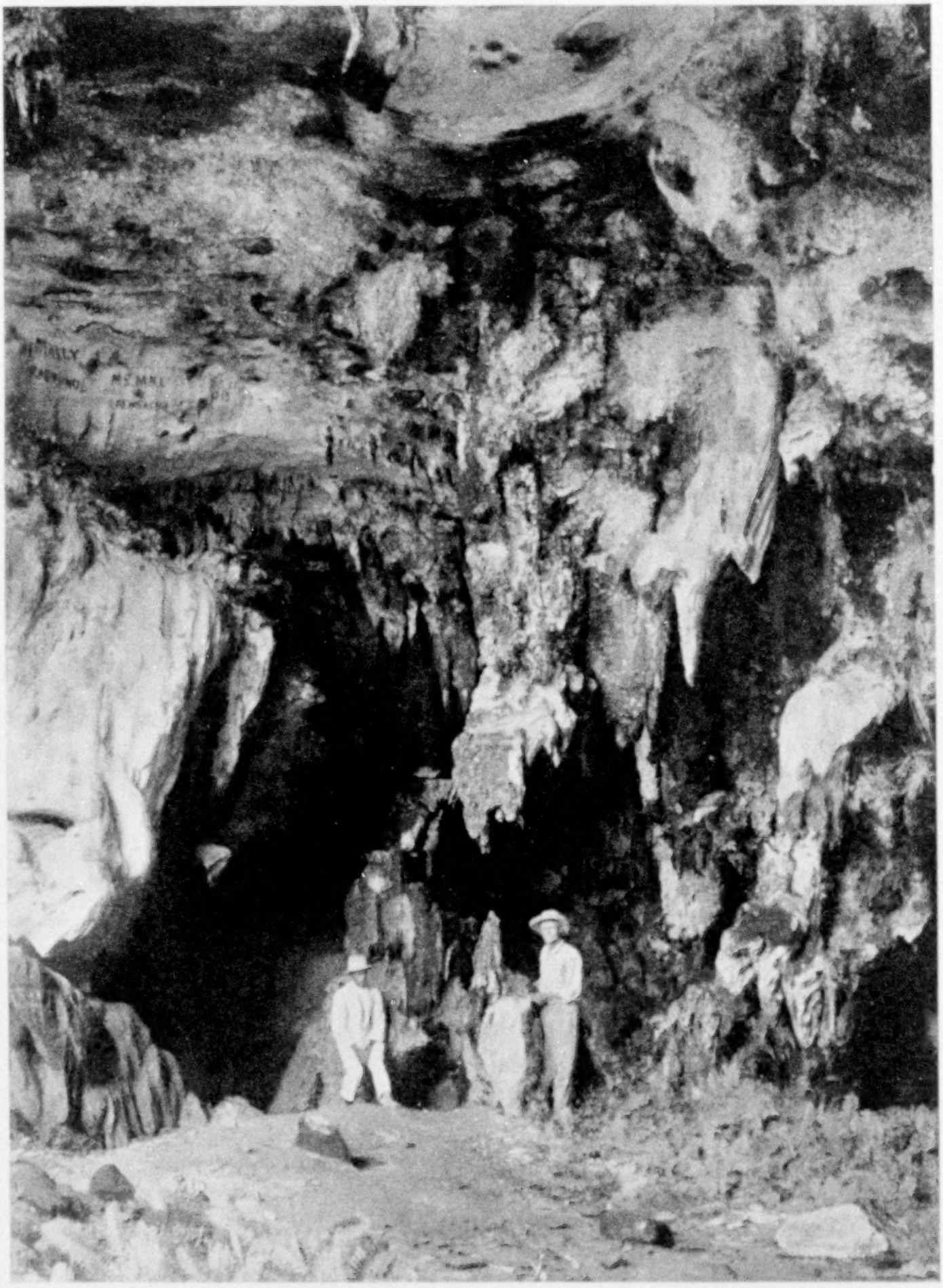
A strong wind sprang up and I rapidly left the deeply scarred mountains of Reunion behind. In a few days the southeast trade winds, that had carried me so far across the Pacific and Indian Oceans, died down, and as I approached Madagascar a storm blew up from the south.

A ROYAL RECEPTION TO AFRICA

For two days I sailed by a vast black cloud that hung over the island. On the second day the cloud lifted and I had a clear view of Cape St. Mary.

After passing it I met with light, southerly winds. A week later I had my first sight of Africa. As I approached the coast, a gale came down out of the north, and all night the *Islander* lay hove to, plunging into a head sea. The gale blew itself out by morning, and the last of the north wind brought me into the harbor at Durban, capital of Natal Province.

At no place was greater interest taken in my voyage. A continual stream of visitors came on board. Nor did they all come to see only. At least twenty made application for a berth on the *Islander*.



AMONG THE CAVES ON RODRIGUEZ ISLAND (SEE PAGE 187)

On the western side of this interesting island is a wide plain studded with many limestone caves. As on Cocos Islands, a British cable company maintains a large staff of employees here.

ONE OF THE HAPPIEST OF ISLES—RODRIGUEZ

For twenty days the author sailed westward across the Indian Ocean from Cocos Islands before he sighted the blue haze of a peak which resolved itself into Rodriguez Island, where he was the recipient of much gracious hospitality (see text, page 187).

The idea of seeing the world from the deck of a small vessel appeals to many.

I had intended sailing around the Cape of Good Hope in February, but I was detained and was still at Durban, telling the people about my voyage, when the worst southeaster in years swept the Cape. When it was over I put to sea.

I sailed from Durban for Cape Town on February 27, 1924. I met with much head wind and at times with little wind at all. For two days I lay hove to in a westerly gale on the Agulhas Bank, with the big seas driving the boat back along her course.

In another westerly gale I lay under the shelter of Cape Infanta for two days. All the time I was sailing in sight of the great sand dunes of the African shore and right in the track of the steamers passing around the Cape of Good Hope.

With a strong east wind I passed Cape Agulhas, the southern extremity of Africa, as the sun was rising, and before midnight I had rounded the Cape of Good Hope.

When I came up under the shelter of the land, I let the *Islander* run on under easy sail, while I went below and turned in, for I was wet, cold, and tired. When I came out in the morning the vessel was becalmed in the lee of Table Mountain.

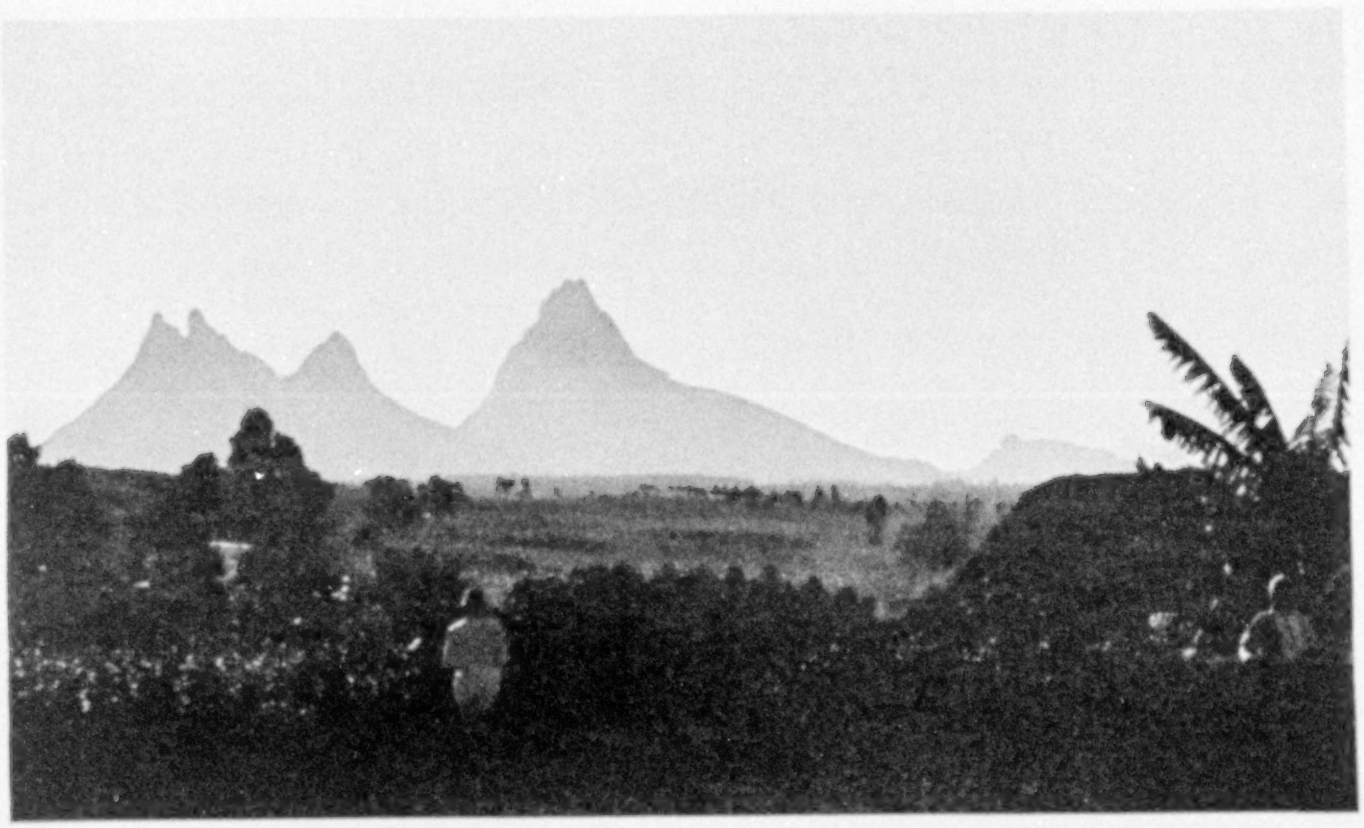
Here I drifted most of the day before getting into Cape Town; but I was content, for behind was the stormy cape and before me lay the grandest sight the whole world around (see page 194).

MANY SEEK TO JOIN THE "ISLANDER'S" CREW

Among the first of many visitors to come on board at Cape Town were members of the Royal Cape Yacht Club, and I have many pleasant memories of my association with those good fellows.

I have never seen a city with a grander setting than Cape Town, and the climate, which is much the same as that of California, was appreciated after my two years in the Tropics.

While I rested from the sea, I had many interesting excursions around the



WHERE PAUL AND VIRGINIA ROAMED

The author was the recipient of many courtesies, including a pass over its 150 miles of railway, during his stay in this Indian Ocean garden spot, the island of Mauritius, which has been a British possession for more than a century, but is still largely French in language and habits. The island is the scene of Bernardin de St. Pierre's famous romance, "Paul et Virginie." Thirty members of the National Geographic Society live on Mauritius.

wonderful Cape Peninsula and Table Mountain.

One of my yachting friends arranged for a cruise to some small islands off the coast that were the breeding place of innumerable sea birds, where the penguins and gannets showed no more fear of men than so many barnyard fowls (pp. 197-8).

I received as many applications for the position of mate on the *Islander* at Cape Town as I had at Durban, and they were not all of the sterner sex either. But, after rounding the stormy cape alone, I was determined to bring my vessel home single-handed.

HIGH AND DRY ON THE BEACH

On June 3 I sailed for St. Helena. The expected southeast wind came up light, and for two days I drifted slowly north along the coast, too close to sleep with any feeling of security. On the third night out, when I was a little farther out, I went below to get some rest. I slept, and awoke when the boat took to the ground.

I sprang up to find that I was in the breakers, and that the wind had shifted to the northwest. It did not take the sea long to throw the boat up on the beach, and when the tide went out I could walk all around her.

With daylight I found that I was in a small bay, with a sand beach at the head and rocks on either side. The *Islander* had chosen her resting place well. From Saldanha Bay to Paternoster, a distance of 25 miles, the coast is all rocks except one sandy cove, Northwest Bay, and into this place she had found her way (p. 196).

The same day that I went on shore I met the manager of a large estate belonging to a resident of Cape Town. Almost the first words that he said to me were, "When the weather gets so that we can, we will come and take you off."

By this time the northwest wind was blowing a gale, and the big seas coming into the bay broke over my craft. The backwash was strong enough to throw her over the keel and downhill. The sea, coming in, would throw her back again, and she lay rolling from side to side until I got out a line from the top of the mainmast to the shore.

The storm passed, and with good

weather my friend in need came with a crew of men and a tugboat from a lobster cannery at Paternoster and put the *Islander* back into her element once more.

They wanted to know what else they could do for me, but the boat was not badly hurt—she had not even started a leak—and, with her once more afloat, I could shift for myself. I sailed back to Cape Town, where three days' work put her in as good condition as ever, and her cargo had not been damaged in the least.

It was now winter at the Cape and northwest gales were frequent, so I decided that it would be more profitable to remain in pleasant surroundings than to be contending with stormy weather.

THE AUTHOR HIRES A ZULU "TAXI" IN DURBAN

The largest city of Natal, South Africa, has no more impressive sight than the ricksha boy, with his headdress of curving horns and colored feathers, and highly decorated, whitewashed legs.

HOMEWARD BOUND VIA ST. HELENA

The time passed quickly and with September I was making ready to sail once more, and when the *Islander* put to sea she was in better condition and better supplied than when she left her home port.

On September 22 I sailed from Cape Town for St. Helena and homeward bound. A southeast wind was blowing and held on. At nightfall I was nearing the place where I had met disaster before. I lay a course to the northwest and carried on all night long. When morning came only a haze on the horizon indicated where Africa lay.

It was springtime at the Cape when I left, and I expected to run right into warmer weather, but instead it was cold and gloomy. The wind continued fair and I ran into the southeast trade winds, but never had I seen so much cloudy weather in the trades. I seldom had an unobscured sight of the sun, and I began to fear that I should miss the island.

On the seventeenth day out I had a fair observation of the sun and calculated my position to be about 60 miles to the east of St. Helena. When night came on I hove to. Morning dawned with clouds and gloom, but I had not been under way half an hour when the clouds opened in the west and I saw the outlines of the cliffs of St. Helena.

From the sea, St. Helena has a bleak, desolate appearance,* but up to the high-

* See, also, "Sindbads of Science," by George Finlay Simmons, in the NATIONAL GEOGRAPHIC MAGAZINE for July, 1927.

THE AUTHOR SAILING IN TABLE BAY, CAPE TOWN

In this harbor, which once sheltered the tiny ships of Vasco da Gama, mighty steamers now tie up at the wharves behind the breakwaters. Here, as at Durban (see, also, page 193), the author received numerous applications for the position of mate on the *Islander*.

THE LIGHTHOUSE ON THE CAPE OF GOOD HOPE

"Good-bye and Good Hope" is South Africa's farewell to the departing voyager.

lands, where the trade winds give up their moisture, there are scenes as beautiful as there are to be found in any country.

St. Helena has some good roads, but there are no motor vehicles in the place. A motorcycle was once brought to the island, but it was not allowed to be taken off the wharf.

Arrangements were made to have me tell about my voyage, which I did to a crowded house. But there were some that did not get to hear it, so I had to tell about it once more.

In 1898, when Capt. Joshua Slocum was circumnavigating the world in the *Spray*, he called at St. Helena, and Mr. R. A. Clark gave him a goat. Not having the heart to kill and eat it, he put it ashore at Ascension Island after it had eaten his chart of the West Indies and his last hat. Mr. Clark was still living at St. Helena, and I enjoyed hearing him tell of the incident, but I was not taking any live stock on board the *Islander*.

POVERTY ASSAILS ISLAND OF ROMANCE

Formerly St. Helena was a prosperous place, but steamships and the Suez Canal have left it only an island of romance. Many of its inhabitants have had to seek employment elsewhere. There is a lace school, and very fine lace is made on the island, but many of the families depend on the workers who go out to other lands and send their earnings home.

The wind was light when I sailed from St. Helena, but eight days brought me up to Ascension Island, my next calling place.

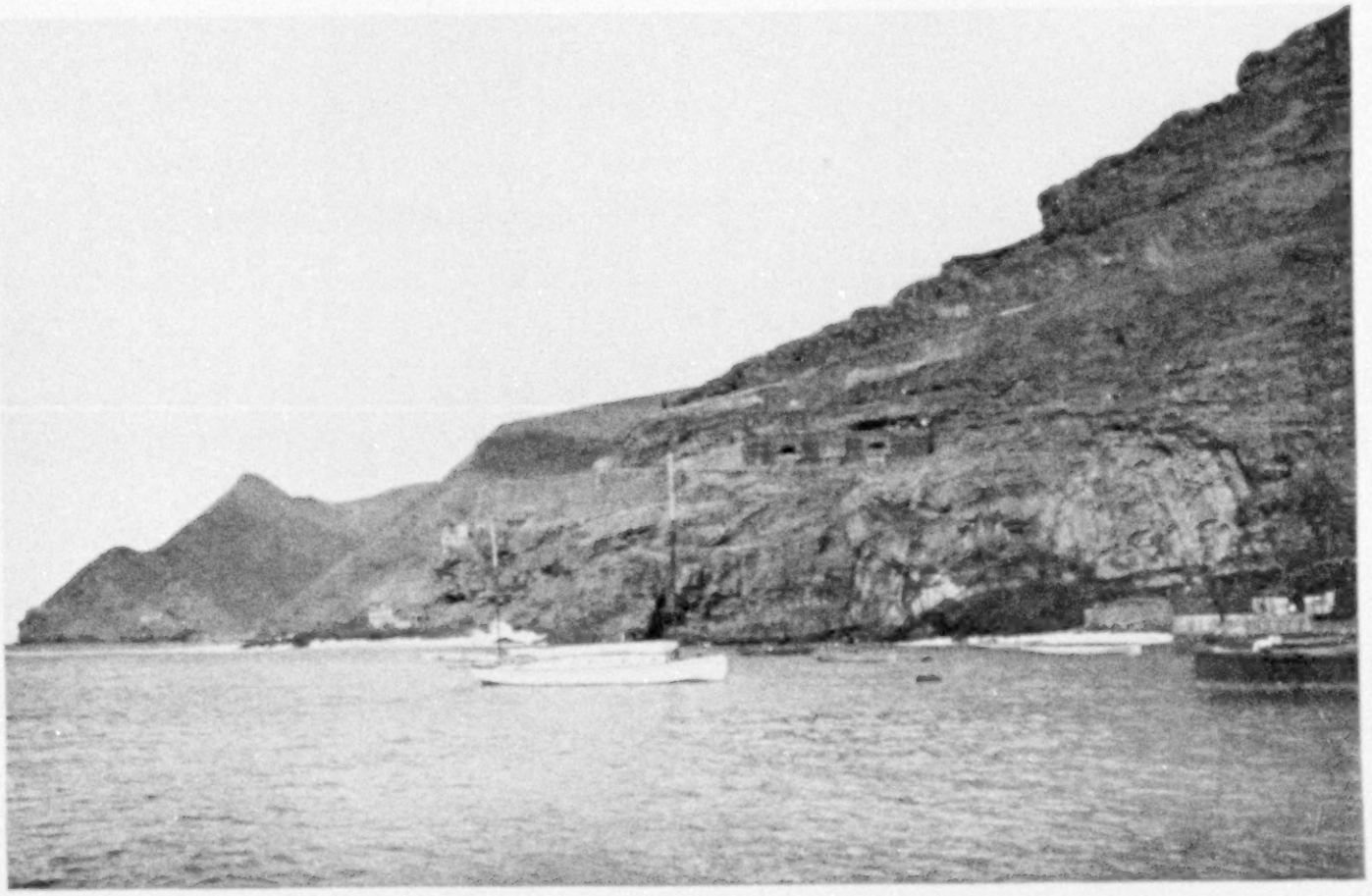
Ascension Island is a lava bed above which rise numerous cinder cones. It is a desert except for the highest peak, Green Mountain, which pierces the trade-

THE "ISLANDER" GOES ASHORE

Although the 25-mile stretch of Cape Colony coast line between Saldanha Bay and Paternoster is studded with dangerous rocks, the *Islander* luckily picked out the one sandy cove in that area when it went aground at Northwest Bay. The crew of the small steamer offshore is working to put the sailing boat back into its natural element (see, also, text, page 192).

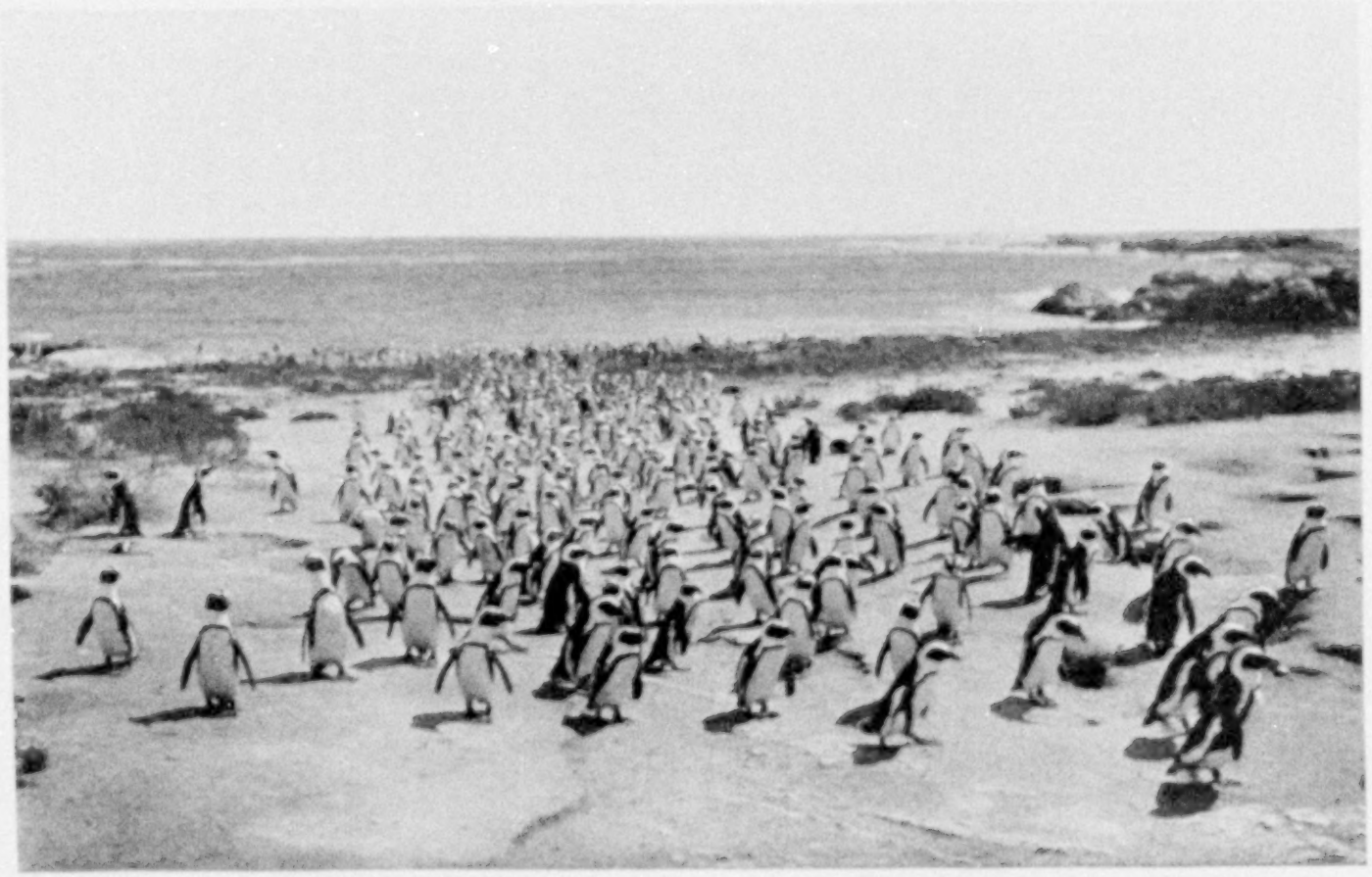
A GANNET COLONY ON MALAGASSEN ISLAND, SOUTH AFRICA

This 26-foot-high island lies near the entrance to Saldanha Bay, the only safe harbor on this section of the Cape Colony coast. It was used by the Dutch as a station for naval vessels and as a postal rendezvous for their East Indian possessions. The birds here, as well as the penguins on Dassen Island (see page 198), resemble barnyard fowls in their lack of fear of man.



THE "ISLANDER" LYING OFF ST. HELENA

Surrounded by forbidding cliffs which rise a thousand feet above a fisherman's paradise, St. Helena stands in splendid isolation far out in the South Atlantic, alone with its memories of the exiled Napoleon and of the days when it was the animated way station of the British East India Company.



PENGUINS ON DASSEN ISLAND, SOUTH AFRICA

This is one of the largest of the small rocky islands which lie near the mainland of Cape Colony. It is about midway between Cape Town and Saldanha Bay.

wind clouds and gets enough rain to support a growth of vegetation. Myriads of sea birds make the island their breeding place. The only people there are connected with the Eastern Telegraph Company and the Ascension Island Guano Company, but at no place was I given a more hearty welcome.

After the bird rookeries, the most interesting place on the island is Green Mountain. This peak rises nearly 3,000 feet above the sea, and up in the clouds, around the summit, is a farm where vegetables are grown and a few cattle and sheep find pasturage.

On the summit is a lily pond. Around a shallow pool a thicket of bamboos has been planted. The clouds and fog condense on the bamboos and the water runs down into the pool. It is called a dew pond—a novelty for a desert island.

A LACE MAKER OF ST. HELENA

Although fine lace is made at a lace school, many families are dependent on the earnings of their children who seek their fortunes in other lands.

IN COLLISION!

On December 15 the *Islander* left Ascension on a course for the West Indies. The wind was light and she sailed along, with something occurring now and then to mark her passage. First, we sighted Fernando Noronha; then we crossed the Equator and ran into squally weather. Out of clouds and rain, we met the northeast trade wind, blowing fresh across the Brazilian Current and stirring up a most uncomfortable sea.

Shortly after midnight, on January 10, the vessel was cruising along under jib and mizzensail when I was awakened from a sound sleep, as she struck something with a crash. I sprang up to see the black hull of a steamer alongside, with the *Islander* up to windward.

I threw the tiller over and tried to bring the boat up into the wind. Just then someone threw a line and said, "Have a rope!" For a moment I was dazed, and then it dawned on me that I was expected to leave my ship and climb up the rope! Actually they were trying to rescue me.

My answer was not very polite, but it was to the point!

This was the most thrilling five minutes of my voyage. One minute I was down under the bilge of the steamer and the next up on the rail. A backwash from the side of the steamer threw my boat off and she came up into the wind and ran clear.

The oil transport *San Quirino*, bound from Los Angeles to Buenos Aires, had taken the *Islander* for a ship's boat and had come up to offer assistance. After

MAN-OF-WAR BIRDS HAUNT THE IRON-BOUND COAST OF ASCENSION ISLAND

This volcanic heap is a geologist's nightmare. So recent are its formations that many scientists believe it to be the youngest of all Great Britain's possessions, if not the youngest island in the world.

repeatedly asking if I wanted to be taken off, the steamer was put on her course, while I went to work to effect some temporary repairs.

The bowsprit was snapped off and the rigging broken, so that I feared the masts would go. As quickly as possible I secured the broken rigging, and when the weather calmed a little a short bowsprit was made from a piece of the old one, so that I could set a small jib. On January 20 we crept into Port of Spain, Trinidad Island, like a bird with a broken wing.

Here I was shown courtesy by the port officials, and the collector of customs gave my craft a berth at the customhouse wharf, where she lay while I was seeing the sights of the charming island.

Here, amid beautiful scenery and plenty of interested spectators, I went to work and repaired the battered boat. When I had covered all with a coat of paint, only a scar on her side showed where she had come in contact with the *San Quirino*.

On April 18 the *Islander* sailed from Port of Spain, where she had received much kindness while she was recovering from her wounds.

PASSAGE THROUGH PANAMA CANAL, COSTS $8.75

A course was laid to pass to the north of all the islands off the South American coast, and I saw none of them, though vast numbers of sea birds flying about indicated that I was passing near.

The wind was light and I sailed slowly along until on the tenth day out I discovered Panama. The trade wind that had carried me across the Atlantic Ocean was now dying down and I drifted all the next day close by the San Blas Islands.

On the morning of May 2 I passed the

THE "DEW POND" IS A NOVELTY FOR DESERT ISLANDS

On the summit of Green Mountain, which rises for nearly 3,000 feet above Ascension Island, is a shallow pool, around which a thicket of bamboos has been planted to condense the clouds and fog (see text, page 199).

breakwater and came to anchor at Cristóbal, in the Canal Zone. The *Islander* had put another ocean behind.

At Cristóbal my ship was turned into a motor boat, with the addition of an outboard motor loaned by a photographer who accompanied me on an excursion to places of historic interest in the vicinity. The motor was retained while passing through the Panama Canal.

For the purpose of going through the canal the *Islander* was rated at five tons, and the charges were $5 for measuring and $3.75 canal toll.

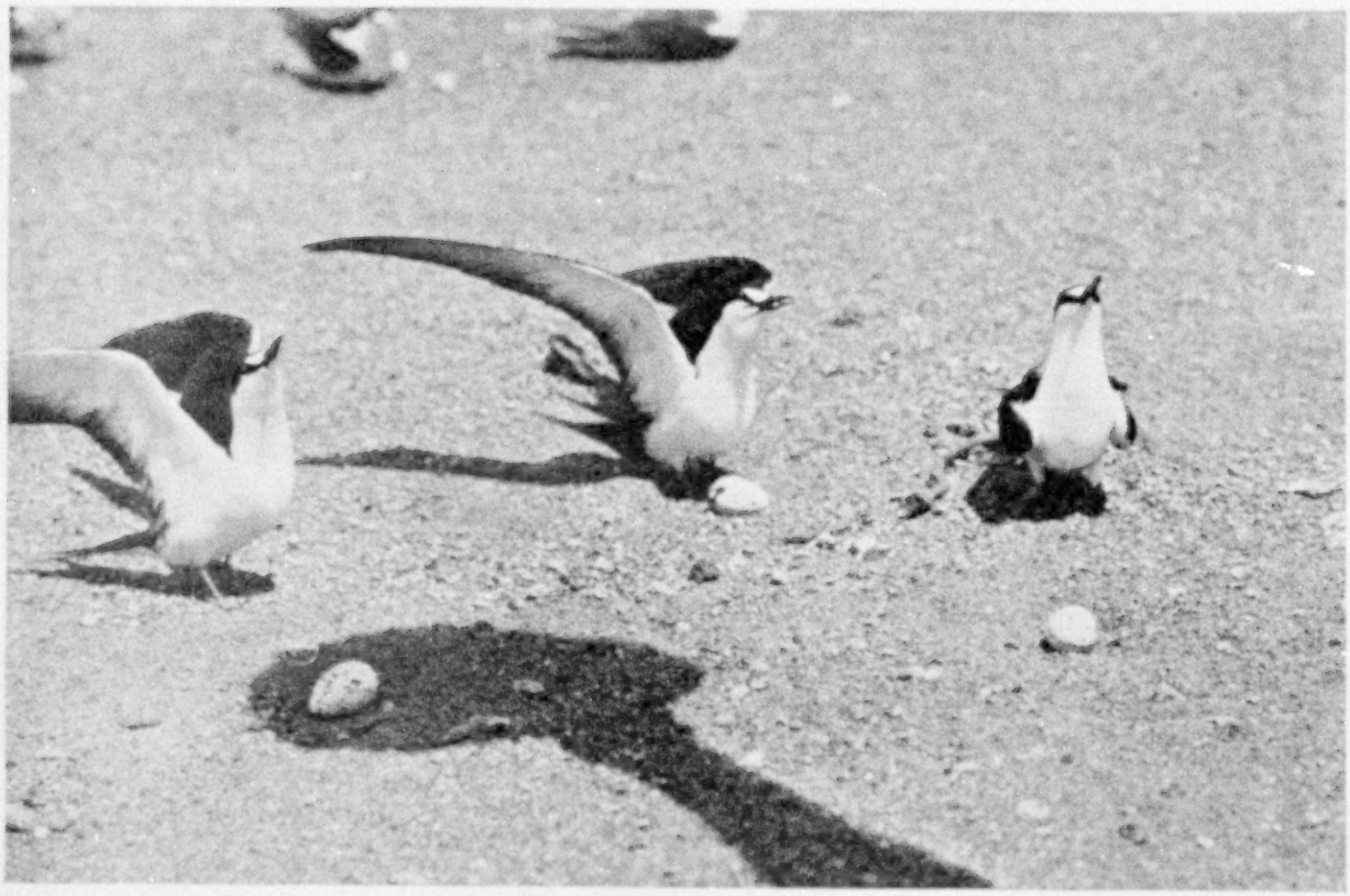
A friend came along to act as engineer, and the *Islander*, along with the steamer *Orinoco*, passed into the locks to be lifted up into Gatun Lake. For a few days she lay at anchor at Gatun, while I watched the procession of great ships passing through the canal. Then I had a delightful sail among the green islands of Gatun Lake to Gamboa, where I was again joined by the engineer, who coaxed the motor into life. Another run as a motor boat brought the *Islander* down through the locks and Miraflores Lake at Balboa, at the Pacific end of the canal.

At Balboa I met Alain Gerbault, a Frenchman who had come single-handed from the Mediterranean in his cutter, the *Firecrest*. It was interesting to compare the cutter rig of his craft with the yawl rig of mine.

There is much of interest to be seen on one's first visit to the Canal Zone, but eventually I made ready for sea again.

The *Islander* was beached and carefully examined. Apparently she was as sound as when she sailed on the long voyage. Another coat of copper paint was spread over her bottom, for there was still a long voyage ahead; her best suit of sails was bent on and ample stores taken on board.

To the west of Panama, Central America, and the Mexican coast is a vast region of light winds and calms, varied by squalls of wind and rain. Of this region the sailing directions say: "The passage to the westward during the rainy season is a tedious affair. It often occurs that



PRESENT AND FUTURE CITIZENS OF JOHN BULL'S ASH HEAP

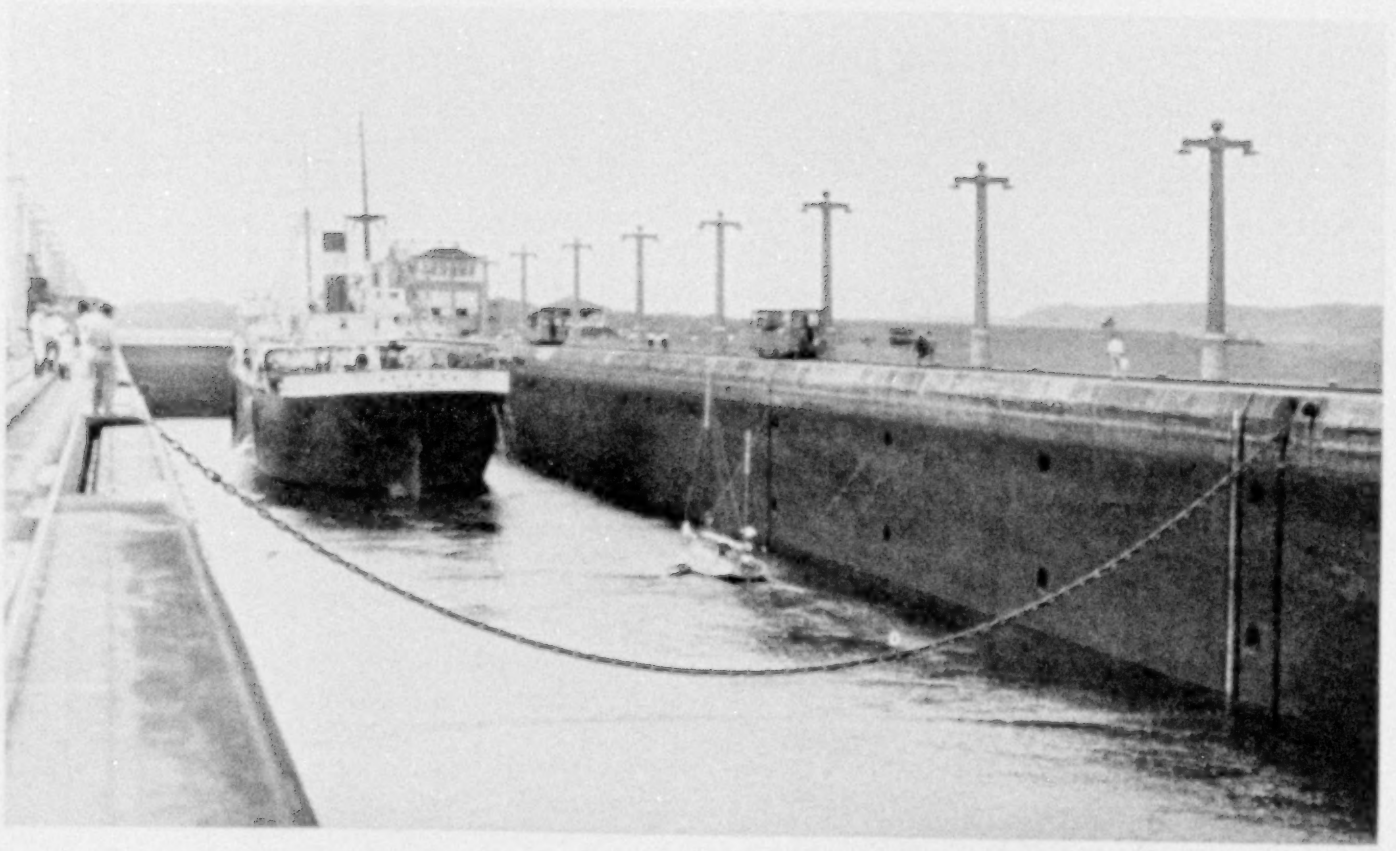
The eggs frequently lie in such close formation on Ascension Island that it is difficult to avoid stepping on them.

ANCHORED AT GASPAREE, TRINIDAD, AFTER REPAIRS

The vessel which had carried the author almost around the world went into "dry dock" on a suitable beach of Trinidad to be reconditioned after its dramatic encounter with the *San Quirino* (see text, page 199).

WIDE-AWAKES IN FLIGHT: ASCENSION ISLAND

When disturbed, the sea birds rise in deafening chorus and hang above the ground in a threatening blanket of wings and sharp bills that darkens the sun.



THE "ISLANDER" HOMEWARD-BOUND THROUGH THE PANAMA CANAL

In passing through the canal, the little craft temporarily departed from its proud estate as a sailing vessel and took on an outboard motor, with which it chugged its way behind the steamer *Orinoco* into Gatun Lake.

ACRES OF WIDE-AWAKES NESTING ON ASCENSION ISLAND

These birds breed four times in three years, on the clinker plains of this barren volcanic landspot in the South Atlantic. During the nesting season thousands of dozens of edible eggs can be gathered each week (see text, page 199).

twenty miles of westing are not made in a week, and it is only by the industrious use of every squall and slant of wind that the passage can be made."

On August 7 I stood out to sea on the last and longest run of the voyage and what proved to be the most difficult part of all. A light northerly wind carried us out of Panama Bay, and I passed Cape Mala at noon on the second day. Here I parted company with the stream of steam traffic passing through the Panama Canal and bore away to the southwest alone.

Down through the region of rain squalls and calms the *Islander* edged her way to west and south until she came out into the southeast trade winds in latitude 3° 43′ N. In the trades a westerly course was kept to longitude 110° W., a distance of some 1,800 miles to westward of Panama; then, bearing away to the northwest, I passed through the doldrums and into the northeast trade winds.

Continuing on into the northwest, I passed out of the northeast trade winds, and then, in latitude 30° N., when about 600 miles offshore, a north wind came up and I stood in for the California coast and home.

Eighty-five days is a long time to be alone on the sea, but I bore it well. Nor was it so monotonous as one might suppose. During the long passage through the doldrums, a day never passed without some excitement being occasioned by the squalls. The study of the weather, when one is depending on the wind, is a subject of never-ending interest, and one watches the approach of the last of a thousand rain squalls with as much interest as the first.

No part of the sea was so full of life as this. For more than a month a vast school of albacore and dolphins accompanied the *Islander* on her course. At night they appeared as great luminous wings stretching far on either side of the boat. In calm weather great numbers of turtles were seen floating lazily on the surface. There was a continuous flight of flying fishes striving to escape from the dolphins and albacore, often to be caught by the gannets and man-of-war birds that were always circling about.

Down in this part of the ocean I met with a squid similar to the flying or leaping squid of the Indian Ocean (see text, page 187), and often I would find more of these squid than flying fish on deck in the morning.

The dolphins swam close alongside, their dorsal fins cutting the surface. One of these I caught with the gaff hook and landed him in the cockpit, where he lay, a streak of gleaming silver dotted over with spots of brightest blue; a moment later he had turned to a golden color and the spots were brown. I made a spear out of a copper rod and caught several more. Of albacore I could have taken a shipload.

TWO COMPANIONS FROM THE SKY JOIN THE SHIP

Two gannets came and took up their residence on board. On account of their colors, I named one Blue Bill and the other Yellow Bill. I drove them far aft, where each chose a roosting place which he seemed to recognize as his own. They spent the greater part of their time preening their feathers, but went off several times a day for fish.

Blue Bill was very quarrelsome, and I kept a stick handy with which to join in when he made an attack on Yellow Bill. The birds always sighted a shark before I did, and I usually became aware of the presence of one of these scavengers through the actions of my feathered companions.

From long drifting in tropical waters the bottom of the *Islander* became so foul with sea barnacles that her sailing was very much impeded. When I was becalmed I went over the side and cleaned them off with a scraper made from a block of hard wood on a bamboo handle.

At last I was clear of the steamy doldrums and sailed on through the trades. As the weather became cooler and the flying fish grew scarce, first Yellow Bill and then Blue Bill deserted.

San Clemente was sighted and on October 31, 1925, I cast anchor in Los Angeles harbor, after an absence of three years eleven months and thirteen days, during which the *Islander* had cruised around the world.

THE WHITE CITY OF ALGIERS

By Lieut. Col. Gordon Casserly

Author of "Tripolitania, Where Rome Resumes Sway," in the National Geographic Magazine

THE long, sweeping curve of a crescent bay—the storied Bay of Algiers—here fringed with yellow sand, there, at one end, edged with gleaming black rocks, and everywhere backed by the steep slopes of a semicircular chain of low hills rising abruptly from the water's edge and crowned with white villas in verdant gardens flaming with Bougainvillæa and poinsettia.

Behind the hills lies the narrow, fertile plain of the Mitidja, in springtime blazing with the varied hues of wild flowers, the yellow of oranges, the green of cornfield and vineyard.

Towering above the plain in rugged grandeur the mighty chain of the Atlas Mountains, seeming, like the mythological giant whose name they bear, to support the heavens on their snow-clad shoulders. And the clouds gather round their peaks and leave the sky clear and blue, almost as blue as the waters of the Mediterranean below.

At one end of the bay are the spacious harbor, the busy wharves, and the terraced houses of a white city climbing to the hilltop.

Algiers, the White City! Its story runs from Hercules and the Golden Apples of the Hesperides through the forgotten chronicles of Numidian, Roman, Vandal, Byzantine, Arab, and Turk to the last of the Bourbon kings, to Napoleon III, and the French Republic. Not a century ago it was the haunt and headquarters of the cruelest, most bloodthirsty pirates that the world has ever seen; to-day it is a bright and beautiful city of modern France.

Alongside its quays lie great steamers being loaded with the produce of a bountiful land; its wharves are piled high with cask and case. Immediately over them rises a high, clifflike wall pierced with caves—merchants' warehouses and offices in vaults.

Along the summit of this wall stretches the beautiful Boulevard de la République, the beginning of a quarter that might rival the best bit of Paris between the Opéra and the Seine, a quarter of well-built streets, where the broad sidewalks shelter under arcades, of shady squares where white mosques front busy cafés and palm trees wave above the electric trams that link the town with the suburbs stretching around the curving bay (see pp. 225-226).

This is the quarter of theaters, hotels, and commercial offices, of attractive shops, of crowded streets where automobile and electric tram dispute the right of way with five-horsed carts. Well-dressed European men and short-skirted, silk-stockinged French girls pass veiled women and stately Arabs in flowing burnooses.

WHERE ALL ONCE WATCHED FOR THE RETURN OF PIRATE CREWS

But a short distance back from the seaward wall the level ceases and the gay-colored, crowded houses climb on each other's shoulders up the steep hillside, as if striving to look over their neighbors' heads out to sea.

Here is the native quarter, and in it dwelt the pirate population that lived by bloody crime on the face of the waters. Every being in it—man, woman, and child, Moorish pasha and Christian slave—had a personal interest in watching each sail that lifted above the distant horizon. It might be an Algerine rover loaded with plunder and chained captives. It might be the herald of a Frankish fleet coming to batter down the pirate stronghold and set free the wretched slaves.

The flat roof of every house, then, must show its occupants the coming ship that might be friend or foe. It might bear the master of the household back enriched with spoils to deck his wives with additional jewels. It might bring the news of his death in battle—news that would scatter those wives to other harems or, if youth and beauty had deserted them, to the slave market or the beggar's corner.

Upward and still upward, house tops house, until one comes to the Kasba, once the palace-fortress of the Dey, the tyrant of Algiers, who claimed his share of the booty that each murderous seafarer brought home, whether it were plunder

THE BAY OF ALGIERS WAS ONCE THE LAIR OF CORSAIR

For three hundred years the very name of Algiers sufficed to bring consternation to the hearts of Mediterranean travelers. Its pirates continued to exact tribute from European shipping until finally subdued by the French less than a century ago.

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OLD AND NEW ARE STRANGELY BLENDED IN THIS TERRACED WHITE CITY

Beyond the series of great modern boulevards which rise from the busy water front of Algiers, there are sections of the one-time capital of the Deys which still suggest, in custom and in costume, the time and clime of the "Arabian Nights."

THE OASIS TOWN OF BOU-SAÂDA ATTRACTS MANY OULED NAÏLS

The girls of this tribe frequently leave their desert homes and go to the more populous cities to earn a dower by their dancing. When they have accumulated a sufficient amount they forsake their art for a home and husband.

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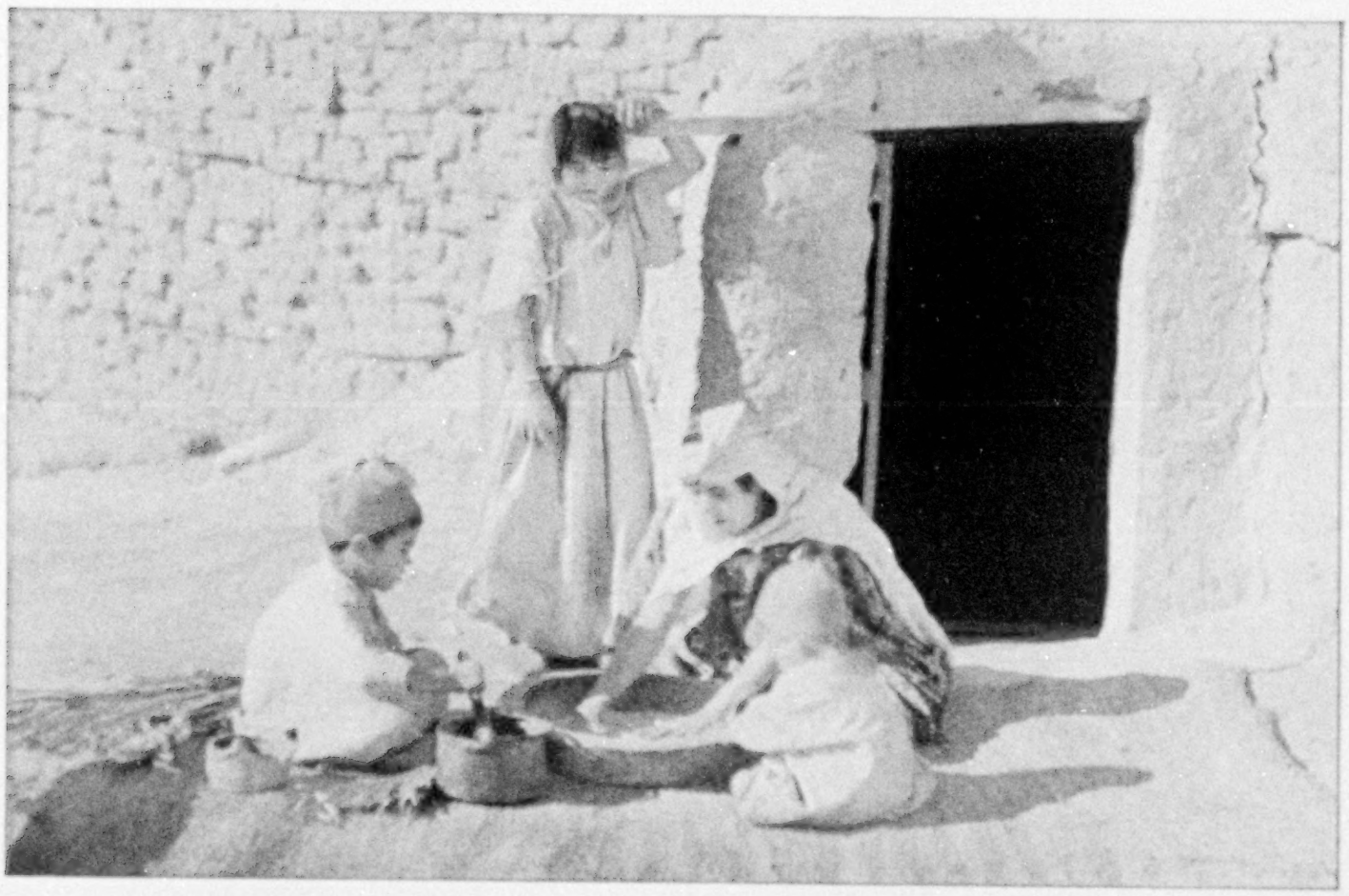
ALGERIAN GIRLS STILL WEAVE "MAGIC CARPETS"

Children are sent to work in rug and carpet factories as apprentices and they produce some fine reproductions of old oriental pieces. This work does not interfere with their education, for the simple reason that girls rarely receive any.



PREPARING THE CHIEF DISH OF THE DESERT

The couscous might be termed the Arab version of an Irish stew and is the *pièce de rèsistance* of most well-ordered Arab dinners. It consists of mutton or fowl and various vegetables, cooked separately, highly seasoned, and served together with steamed wheat dumplings.

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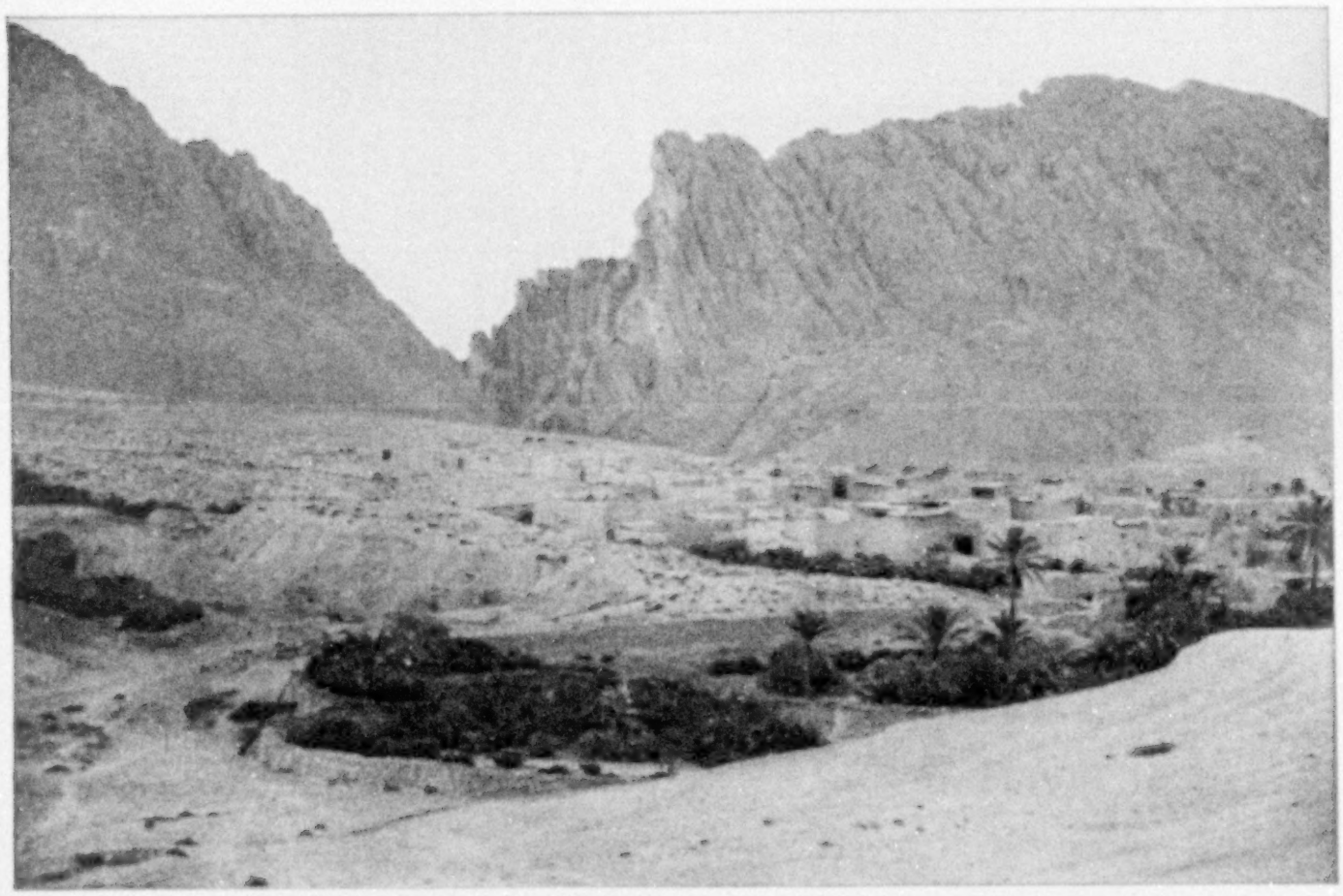
WHERE THE CENTURIES HAVE SEEN NO PROGRESS

Wheat and other grains are raised in the Algerian oases and are still threshed largely by woman's hand power much as they were hundreds of years ago. Manual labor is far cheaper in the desert than machinery.



THE GATE OF THE DESERT

According to Arab tradition the great rift in the rock wall at El Kantara was made by Hercules with a single twist of his foot, to form a gateway between mountains and desert. The place derives its name from the remains of a Roman bridge which are still to be seen near by.

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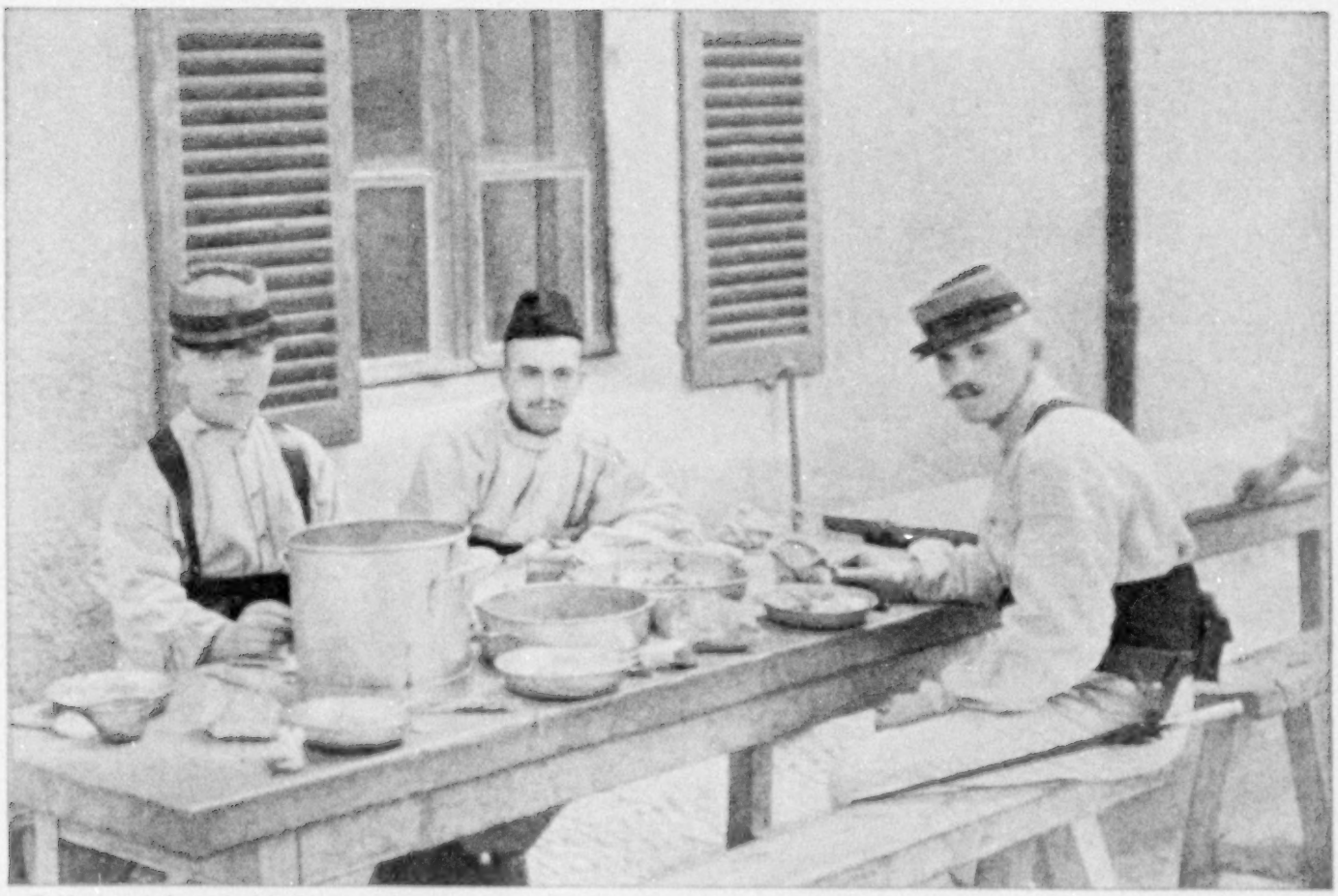
THE KORAN REPLACES THE THREE R'S IN THIS SCHOOL

In compliance with the injunctions of the Prophet, all Arab boys must learn the Koran. However, the language which they speak has drifted so far away from the pure Arabic of their sacred book that they can not understand passages they memorize, but simply repeat them parrot fashion.

THE ROAD TO GLORY IS SOMETIMES A ROCKY ONE

The heterogeneous individuals who comprise the French Foreign Legion have penetrated the Algerian Desert with good roads. Assignment to a long term of road-building work is one of the punishments for attempted desertion from the Legion.



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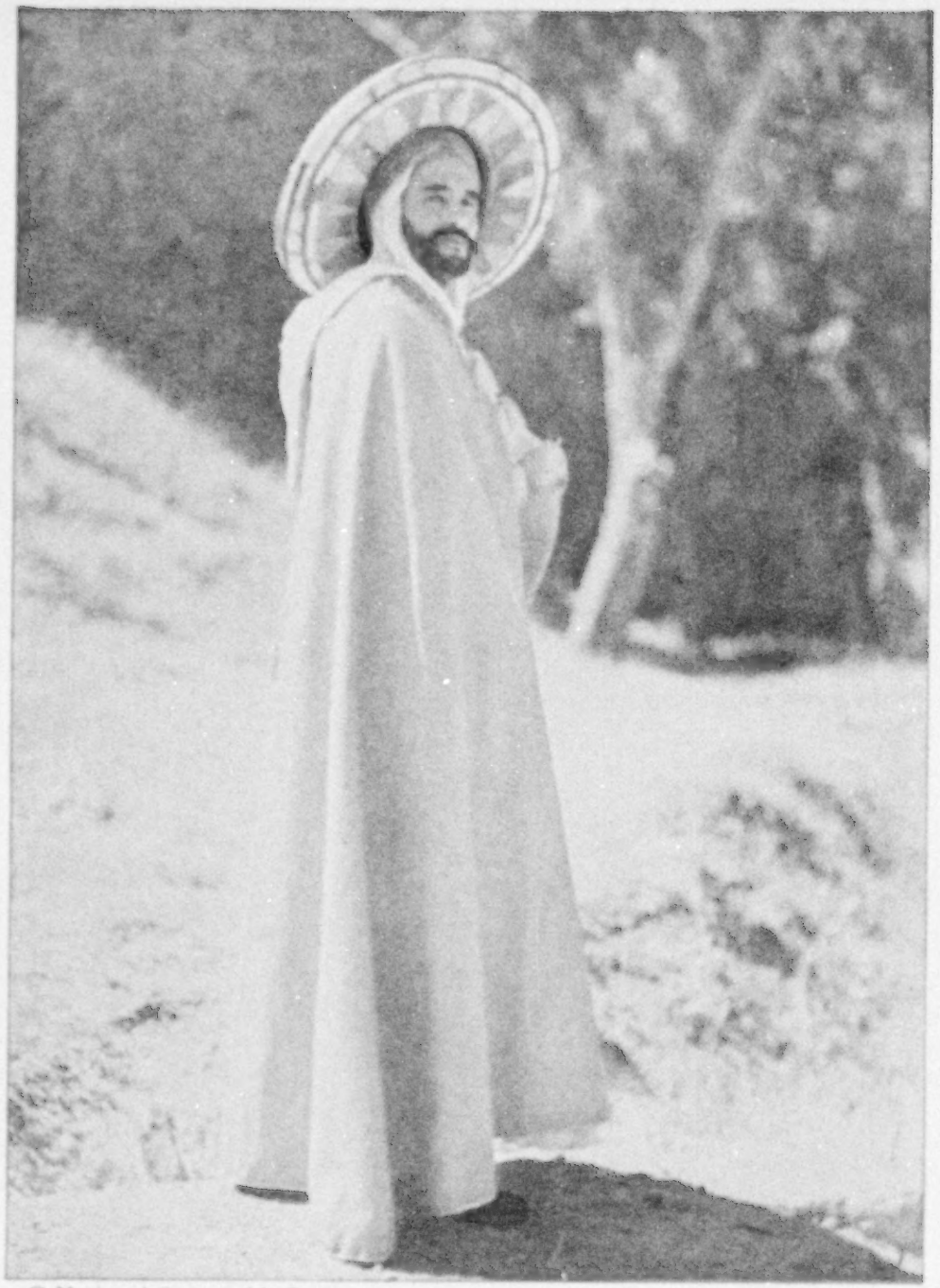
FRANCE'S FAMOUS FIGHTERS ANSWER THE MESS CALL

The motto of the Foreign Legion is, "No questions asked," and many a man buries his past under its uniform. The life of the *Légionnaires* seems romantic, but instead is the sternest reality.



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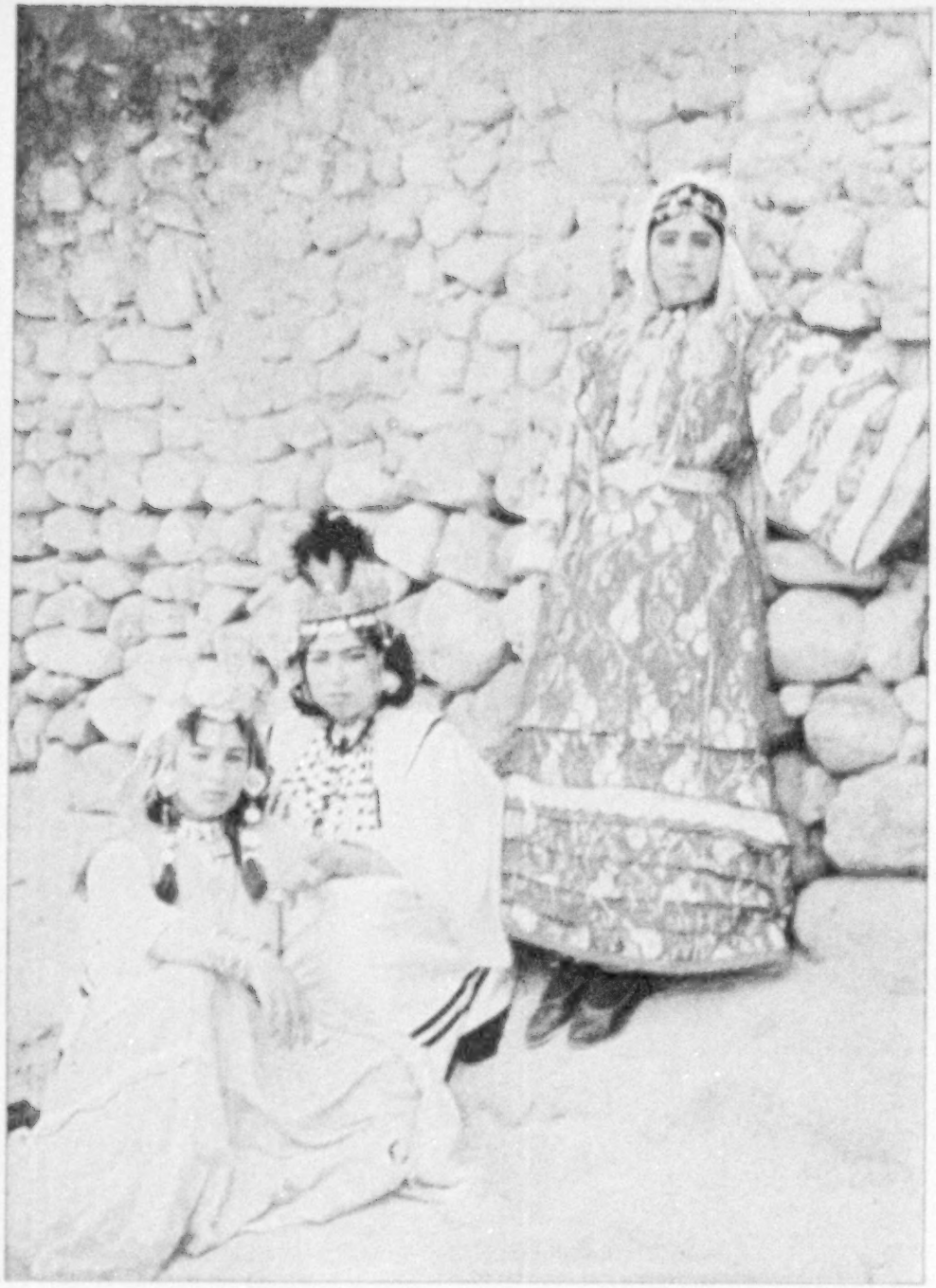
HIS SCARLET CLOAK DENOTES HIGH OFFICE

At the head of each Algerian tribe is a Caid who dispenses justice according to tribal usage. These men frequently possess marked qualities of leadership and executive ability.



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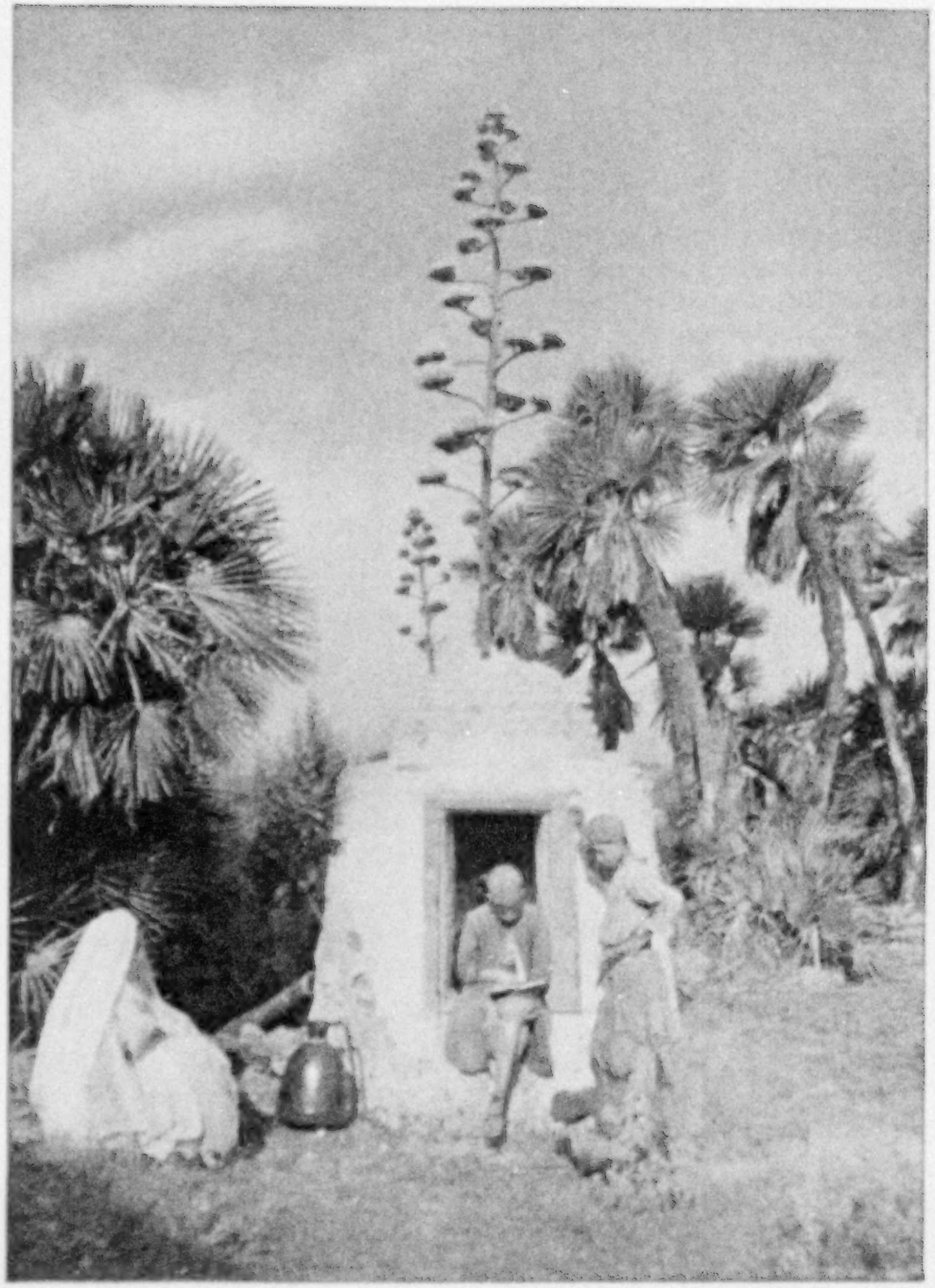
THE FAME OF THEIR DANCING SPREADS AFAR

Throughout Algeria the dancing of the Ouled Nails is known. These girls are very circumspect in their costume but execute a dance that greatly appeals to their Arab patrons.



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WELLS ARE IMPORTANT PLACES IN NORTH AFRICA

Until the French came to Algeria good water was a rare commodity. They introduced the artesian well to supplement the springs and surface wells of the oases.

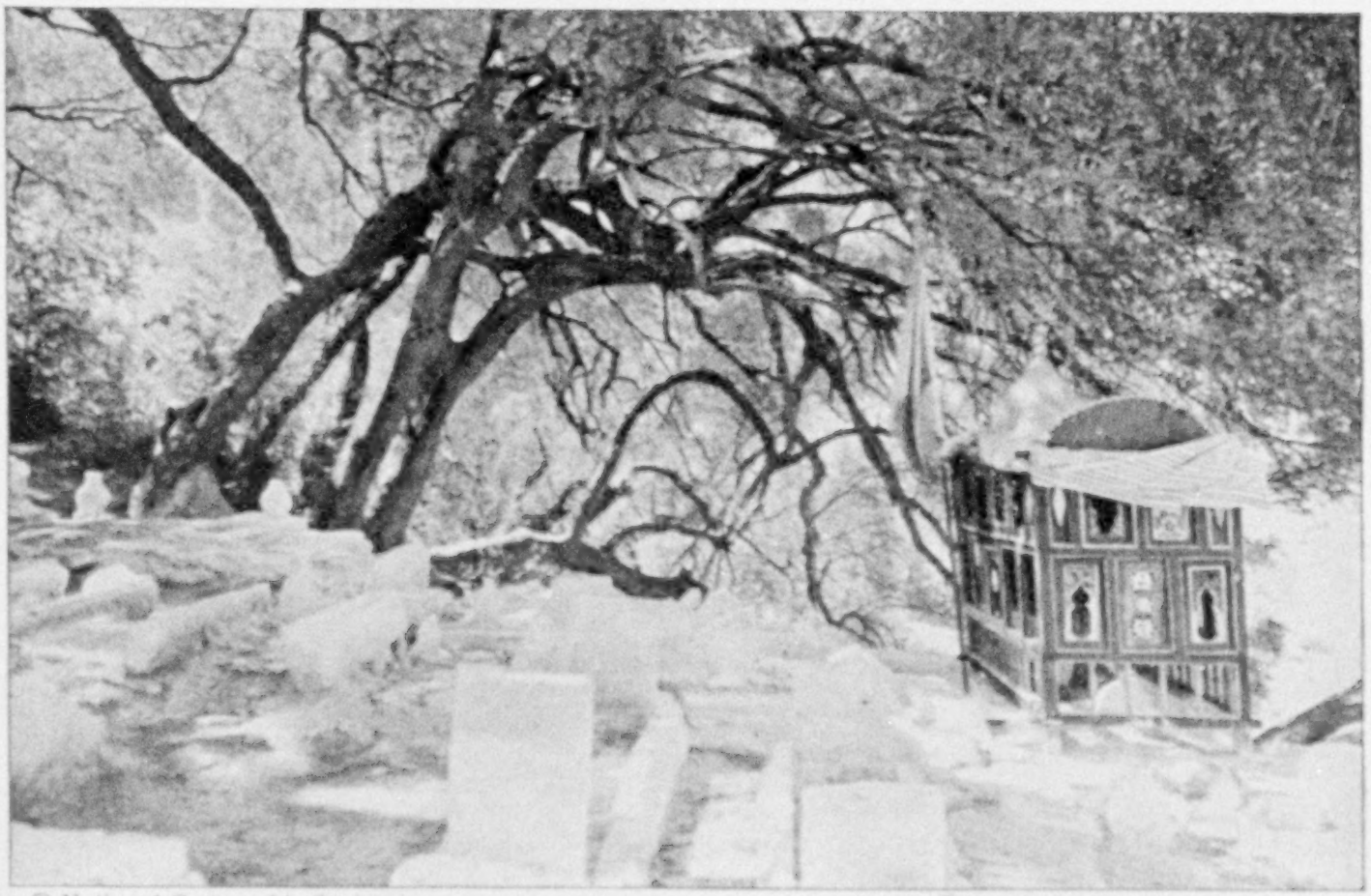
Autochromes by Gervais Courtellemont

THESE ARAB BEAUTIES SCORN THE MOSLEM VEIL

City women generally throughout the Moslem world veil their faces, but the Ouled Naïl dancers do not and are consequently considered beyond the pale of polite society.

A WOMAN OF BOUZARÉA DOES HOMAGE TO HER DEAD

On Friday, the Mohammedan Sabbath, only women visit the cemeteries. After attending the graves of their departed, they settle into groups on the grass and engage in a weekly exchange of news and gossip.



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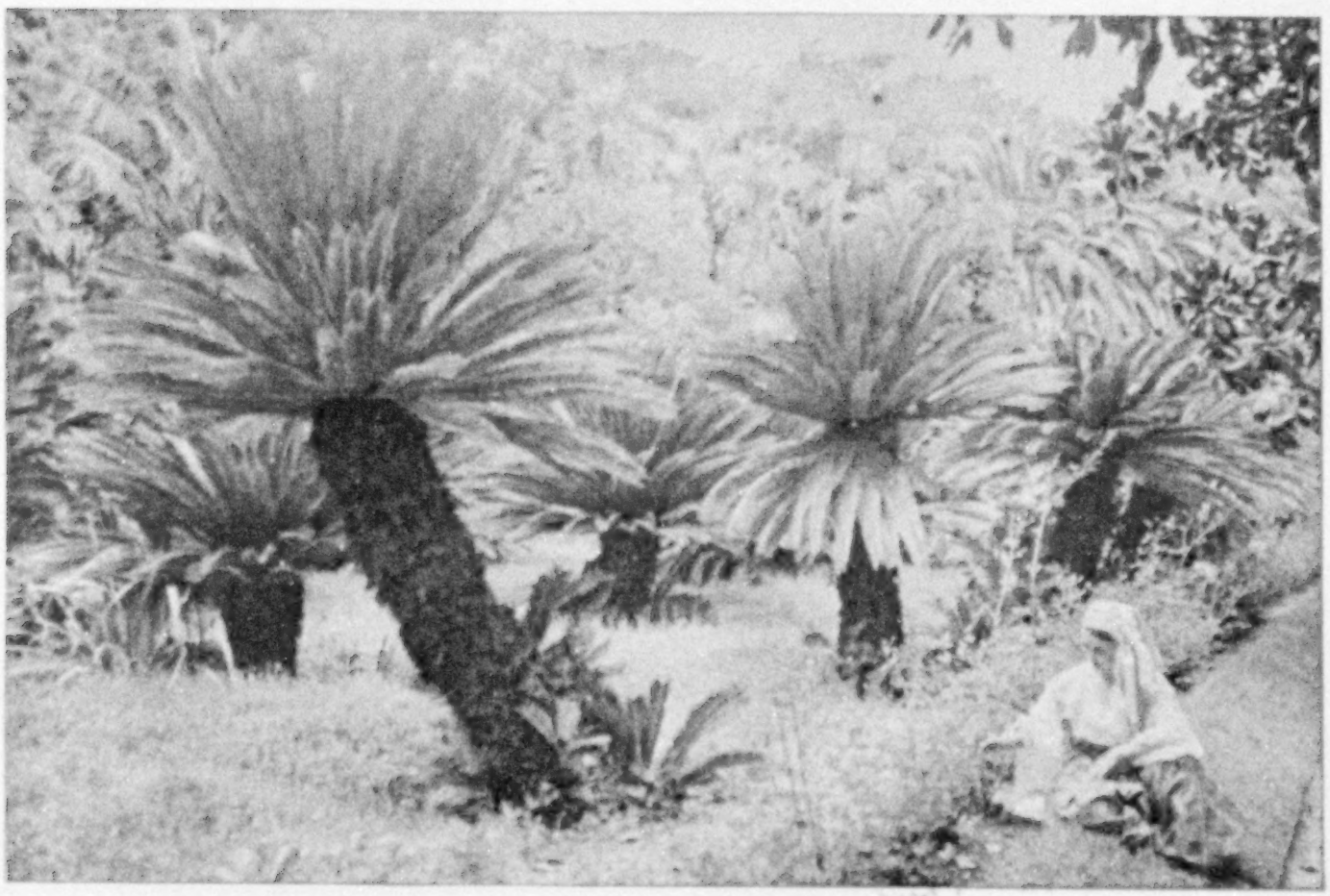
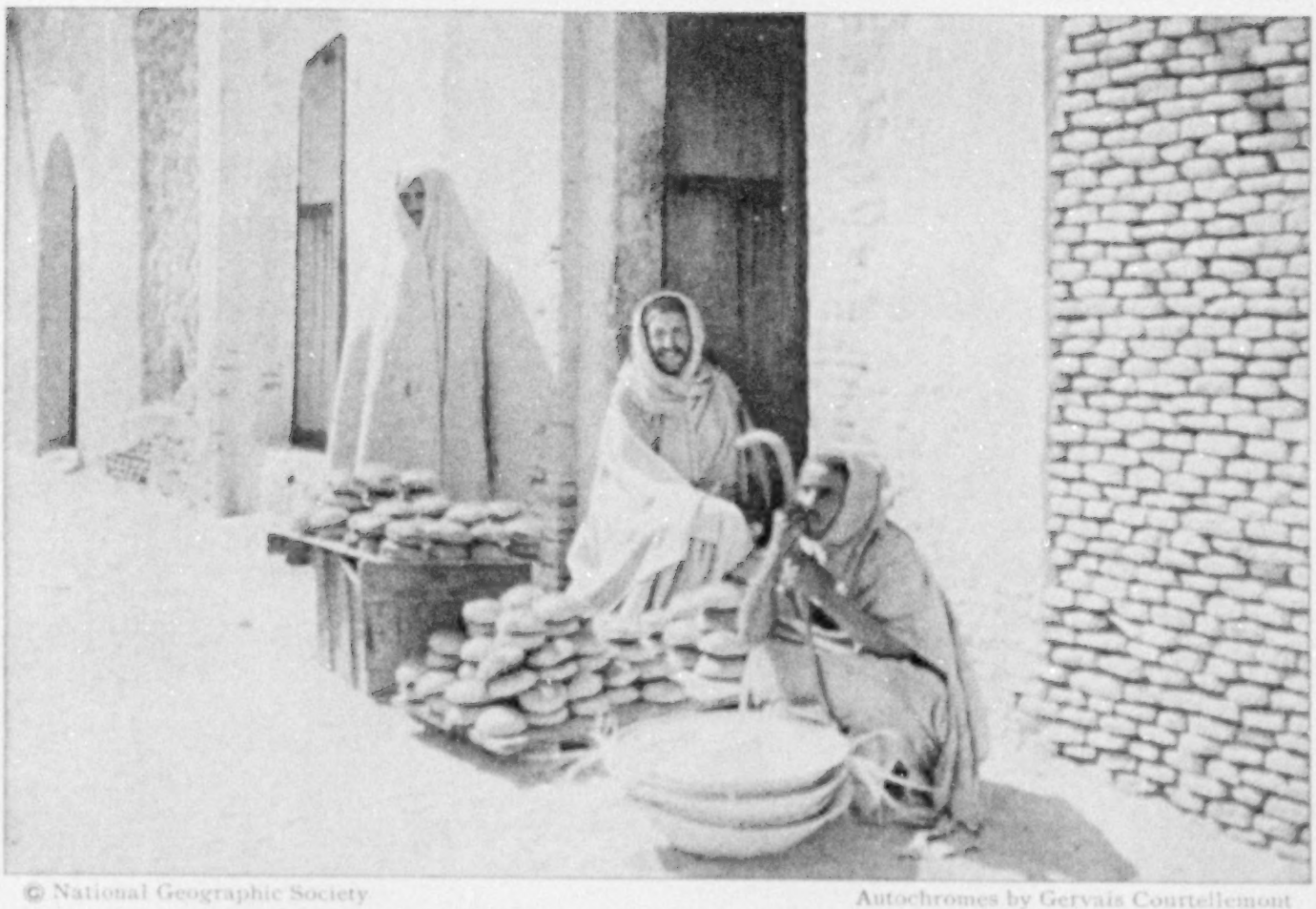
WHERE SONS OF THE PROPHET FIND THEIR LAST REST

Mohammedan burial grounds are accorded high respect, for Moslems reverence their dead. The Prophet decreed that the dead should be carried quickly to the grave, that a righteous person might the sooner arrive at happiness and a wicked one be sooner out of the way.



TREES THAT TRACE AN ANCIENT LINEAGE

The cycads are remnants of the floral life of the world that existed during the Carboniferous age. They are beautiful dark evergreens which, though long-lived, seldom grow as high as these. The French have made the Botanical Gardens of Algiers the finest in North Africa.



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BAKERYMEN DISPLAY THEIR WARES IN BISKRA

Pure-food principles are not seriously regarded by the Arabs and many varieties of edibles are displayed on the street, with no protection from dust and dirt. A good Arab will not eat on the street, however, lest he give offense to some hungry person.

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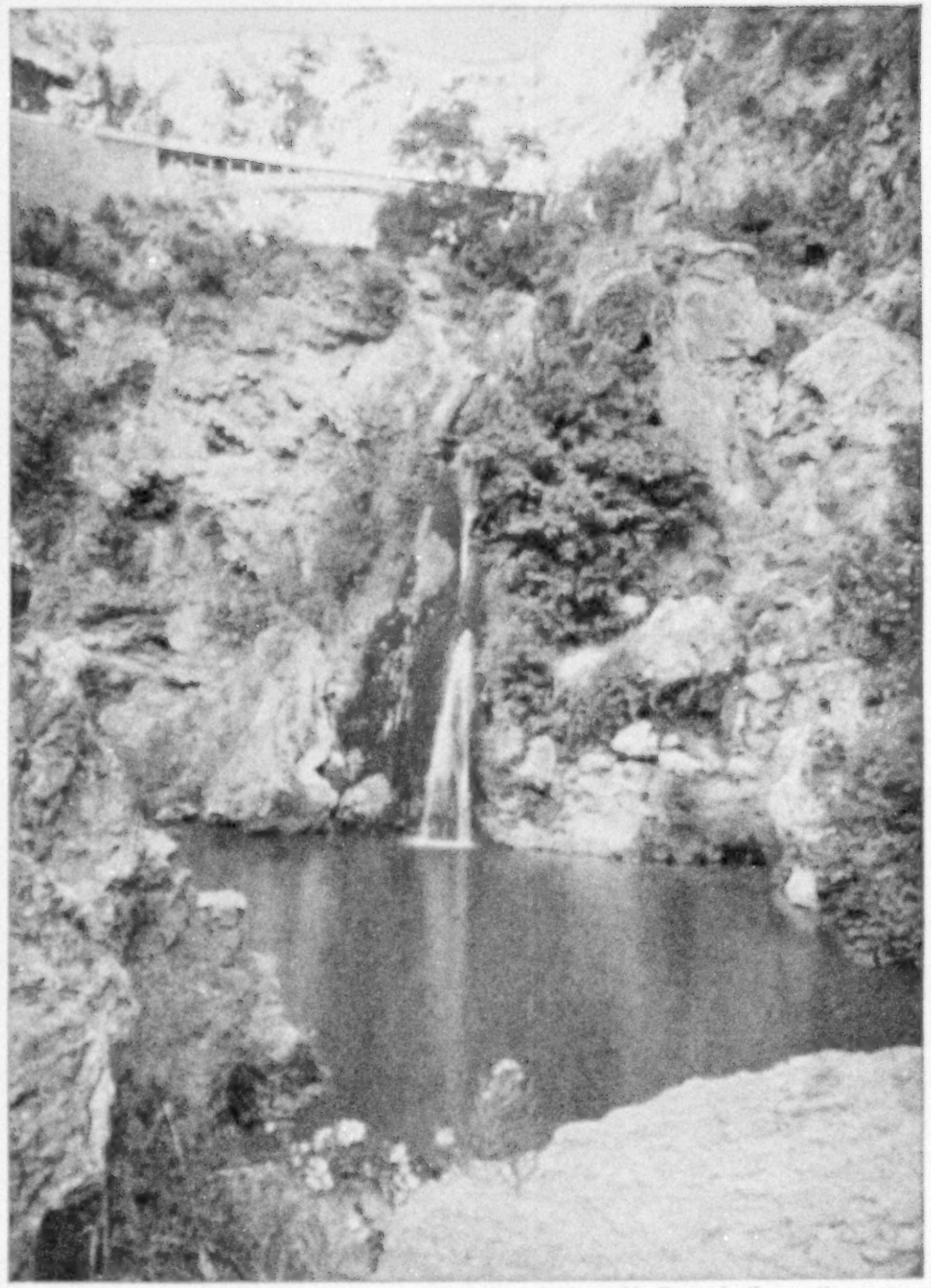
THEIR MILLINERY STYLES KNOW SLIGHT CHANGE

A headdress similar to this is supposed to have been worn by the women of North Africa in Punic times. The Ouled Naïls braid and plaster their black hair and then adorn it with gold and silver bands and ornaments that create an effect like stars shining in a desert night.



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BEAUTIFUL CASCADES ARE FOUND NEAR TLEMÇEN

Once a part of Morocco, Tlemçen presents a more truly Moorish aspect than any other city of Algeria. Situated near the sea at an elevation of about 3,000 feet, it has a delightful summer climate and is a health resort. It is also rich in historical and archeological interest.

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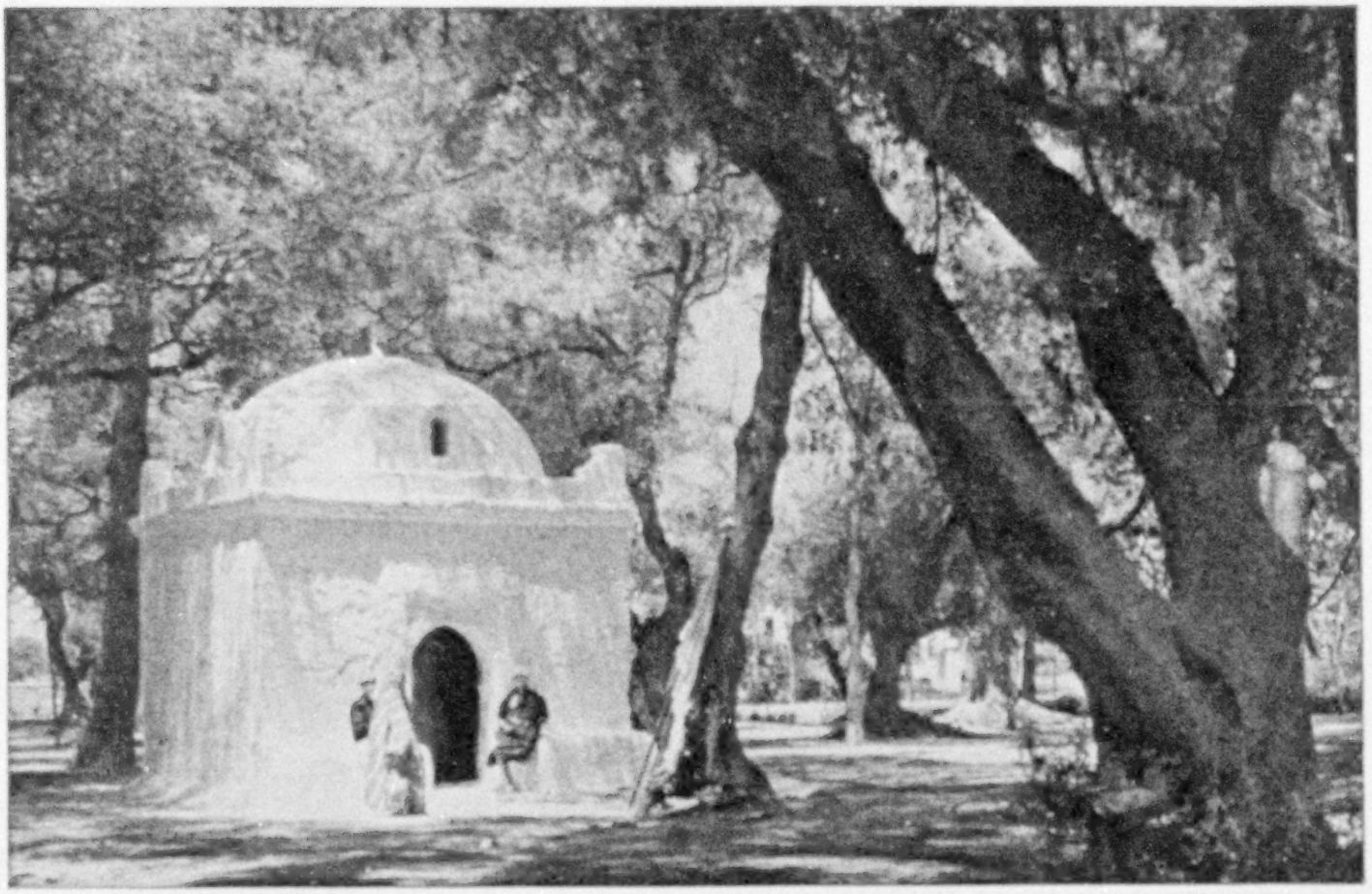
A HEADDRESS WORN ONLY ON FESTIVE OCCASIONS

These caps are richly decorated with embroideries, often in gold or silver thread, and are generally worn with a similarly embroidered silk gown. On the streets Algerian women wear a "fall" veil over the face and a scarflike garment draped over the head and shoulders.

Autochromes by Gervais Courtellemont

A TIME-HONORED CUSTOM

Instead of knife, fork and spoon, the Arab diner usually uses his fingers, consequently the hands are laved both before and after the meal. Children attendants serve the guest with basin and water for the purpose. On the floor at the right is a brass coffee tray.



A MARABOUT BENEATH THE AGE-OLD OLIVE TREES AT BLIDA

The term "marabout" is applied to a Mohammedan holy man or saint and is also used to denote the tomb in which he is buried. These tombs are regarded as endowed with the holy man's sacred character and as such are hallowed places. Blida is a sizable city near Algiers.

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WHERE RICH MAN AND BEGGAR LIVE ALIKE

Among the Kabyles there are few fine houses, even the well-to-do living in primitive fashion. These Berbers have peculiar ideas of property, a man sometimes owning a fig tree but not the land on which it is grown and perhaps not even all of its branches.

DWELLERS IN THE "PLACE OF HAPPINESS"

Bou-Saâda is beautifully situated where desert and mountain meet. It is the nearest oasis of importance to the city of Algiers and is much visited by tourists. The name means "Place of Happiness."

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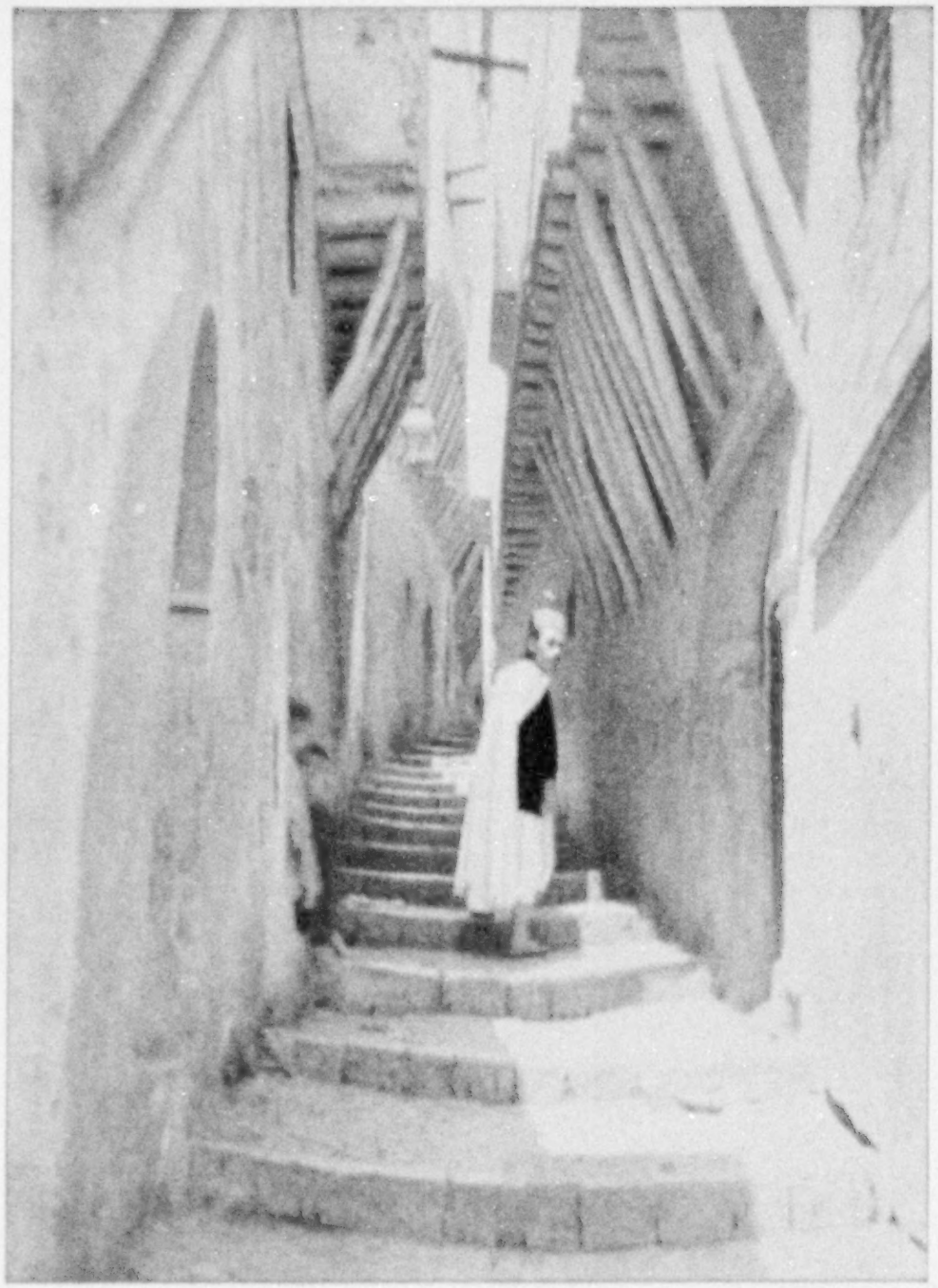
ALLAH'S GREAT GIFT TO THE DESERT DWELLER

In favored districts the date palm tree sometimes attains a height of 80 feet. In various parts of the desert country it is the only useful plant grown, and its sweet, nourishing fruit is literally the "staff of life" for many nomadic tribes.



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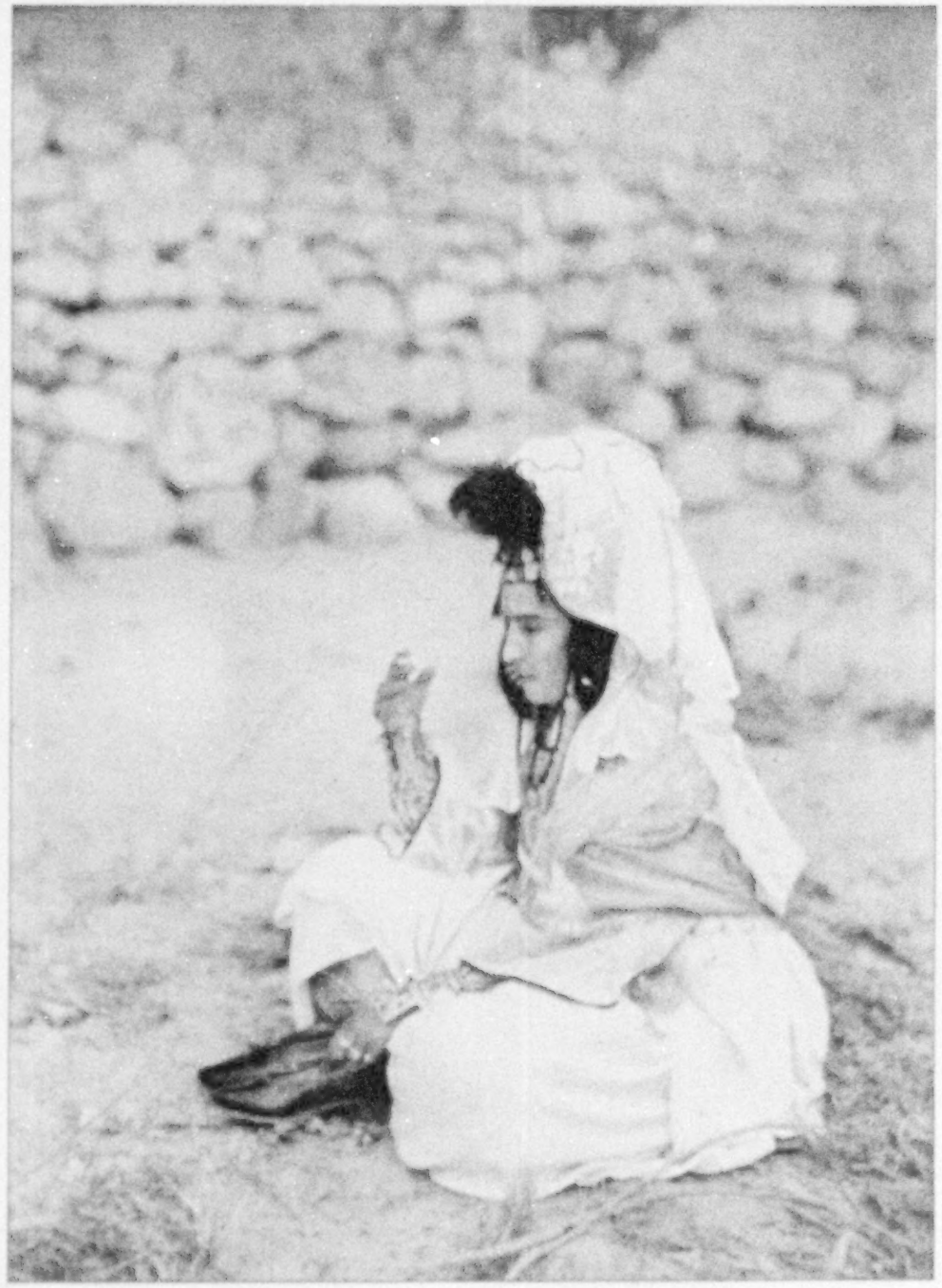
NO WHEELED VEHICLE EVER TRAVELED THIS THOROUGHFARE

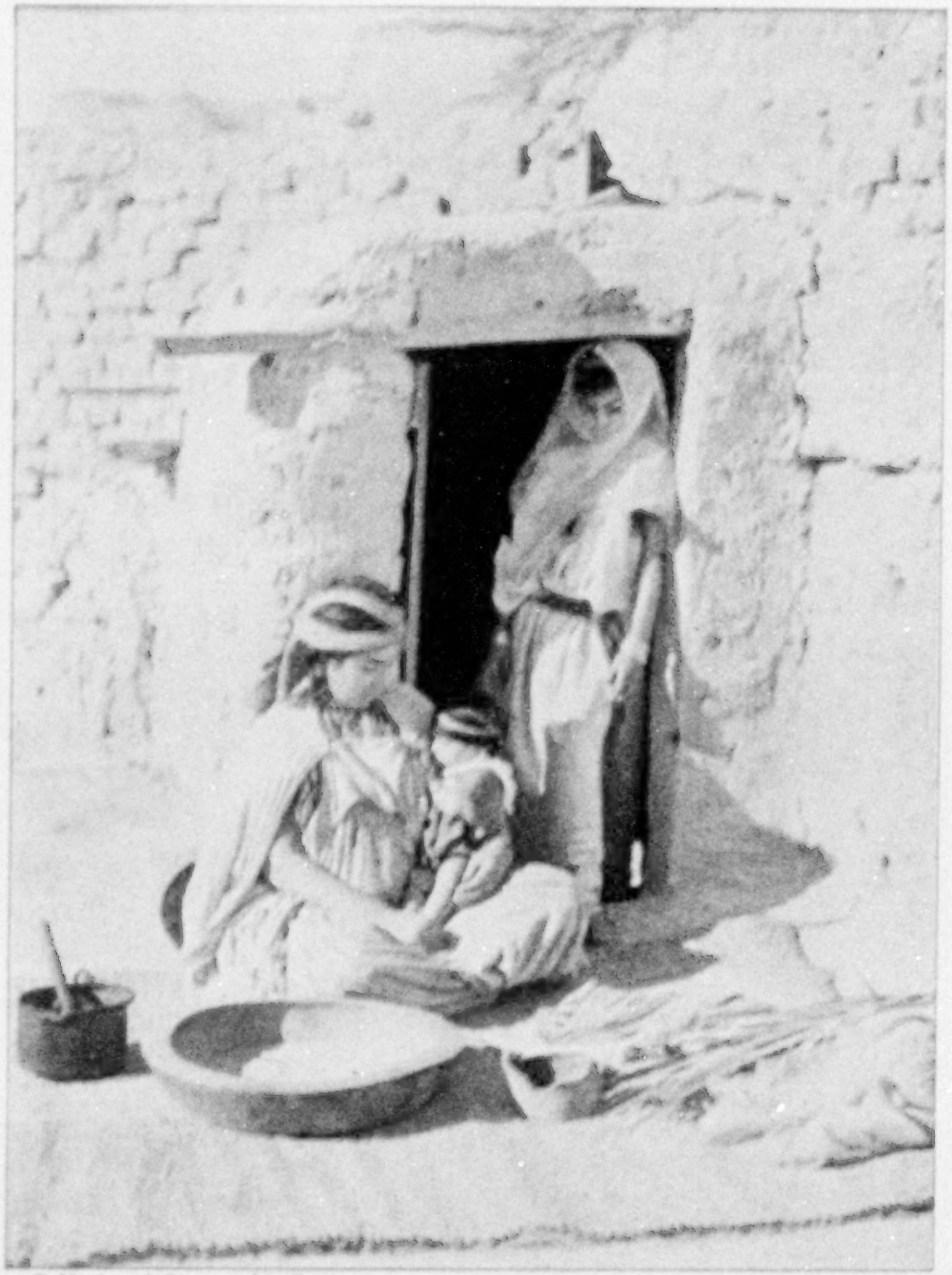
The Arab quarter of Algiers presents a maze of steep, winding streets, some of which ascend so abruptly that they become a series of long, sloping steps. The houses that line them project outward on wooden struts until the upper stories nearly touch.



Autochromes by Gervais Courtellemont

A GAILY BEDECKED DAUGHTER OF THE DESERT

She wears the greater part of her fortune on her person. Silver and gold coins, cleverly linked together, and many artfully worked silver bracelets, necklaces, rings, anklets and headbands, some adorned with coral and turquoise, represent her earnings as a dancer.



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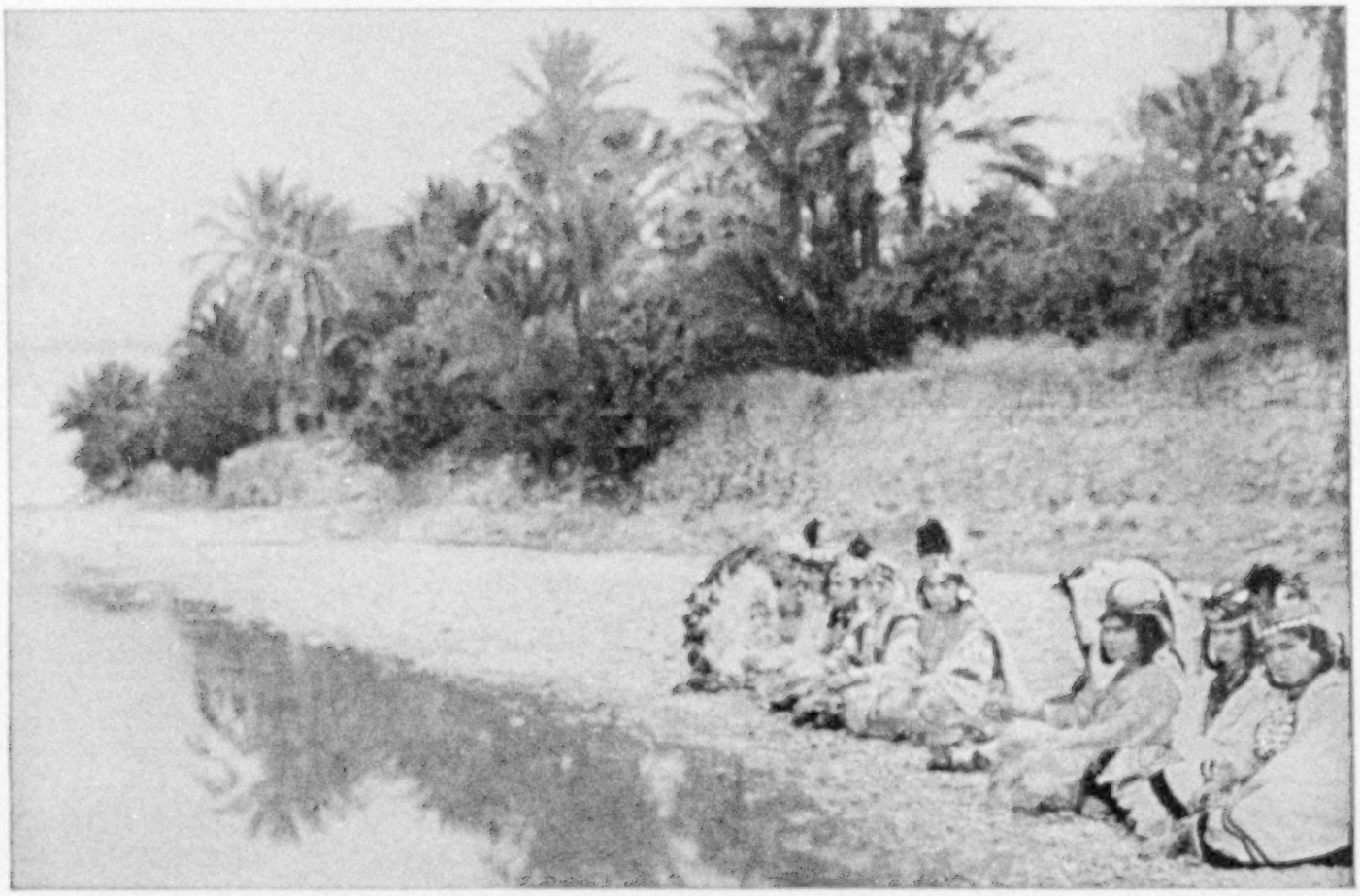
A HOUSEHOLD IN BISKRA

All is not beauty and romance in the country of sheiks and oases. Domestic arrangements are often extremely squalid.

Autochromes by Gervais Courtellemont

A QUARTET OF DANCING GIRLS

A pointing hand and a piece of red coral are worn by many Arab women to prevent the baneful machinations of demons.



BESIDE STILL WATERS

Wherever there is water the great desert blossoms into a beautiful garden. Here at Bou-Saâda a little river supplies the life-giving element. Numerous French artists have helped to make the beauties of this oasis known to the world.

© National Geographic Society Autochromes by Gervais Courtellemont

AN AFTERNOON "COFFEE" FOR LADIES ONLY

In Algeria, where neither tea nor tables are much used, coffee is the popular drink, and when the ladies gather in their courtyards for an exchange of neighborhood news the coffee tray is placed on the ground and they group themselves around it.

from sacked towns on European shores or weeping women from Italy, France, or Spain.

MOORISH QUARTER UNCHANGED IN ASPECT SINCE PIRATE DAYS

In outward appearance this Moorish quarter has changed but little since those pirate days. Streets—alleys, rather—traverse it, steep and narrow—so steep that frequently they must become staircases to climb the hillside (see Color Plate XIV). Some are so narrow that three men cannot walk abreast, and the pedestrian must flatten himself against a wall to let a tiny, loaded donkey go by. Their very names are fascinating: Rues du Chameau, de la Girafe, des Abencérages, de Tombouctou, des Sarrasins. Has not Rue Lalahoum or Rue des Abdérames the Arabian Nights' touch? Has not Rue de Nuit a mysterious, and Rue des Dattes an attractive, sound?

The houses hemming the streets thrust out their upper stories, supported on inclined wooden struts, until they are not a yard apart. Often they are built completely across, so that the narrow lane must pass under them in a dark tunnel. The few windows, small square openings, are barred with gratings bent outward; and here and there a painted face looks out from them and smiles down invitingly on the wayfarer.

But usually the houses present a blank front to the outer world—blank, that is, but for a carved door with a small, twisted column on either side and a stone crescent above it.

One of these doors opens and three tiny children toddle out, laughing—one a boy in a red fez and a small shirt, the others little girls with flowered blouses, colored skirts, and gaudy handkerchiefs twisted around their heads.

The open door gives a glimpse of a wee tiled hall with a dwarf staircase twisting out of sight.

Farther down another door stands invitingly ajar. Pass through it out of the dim alley and you are in another world. A bright courtyard opens to the blue sky above. Two, three tiers of galleries with gaily tiled parapet walls top carved stone or marble pillars; a vine swings across the void; flowers in pots or Bougainvilæas dash notes of glowing color into the court on which women look down and call shrilly to the serving-maids seated on the paving stones below, cleaning great brass water jars of old and graceful design.

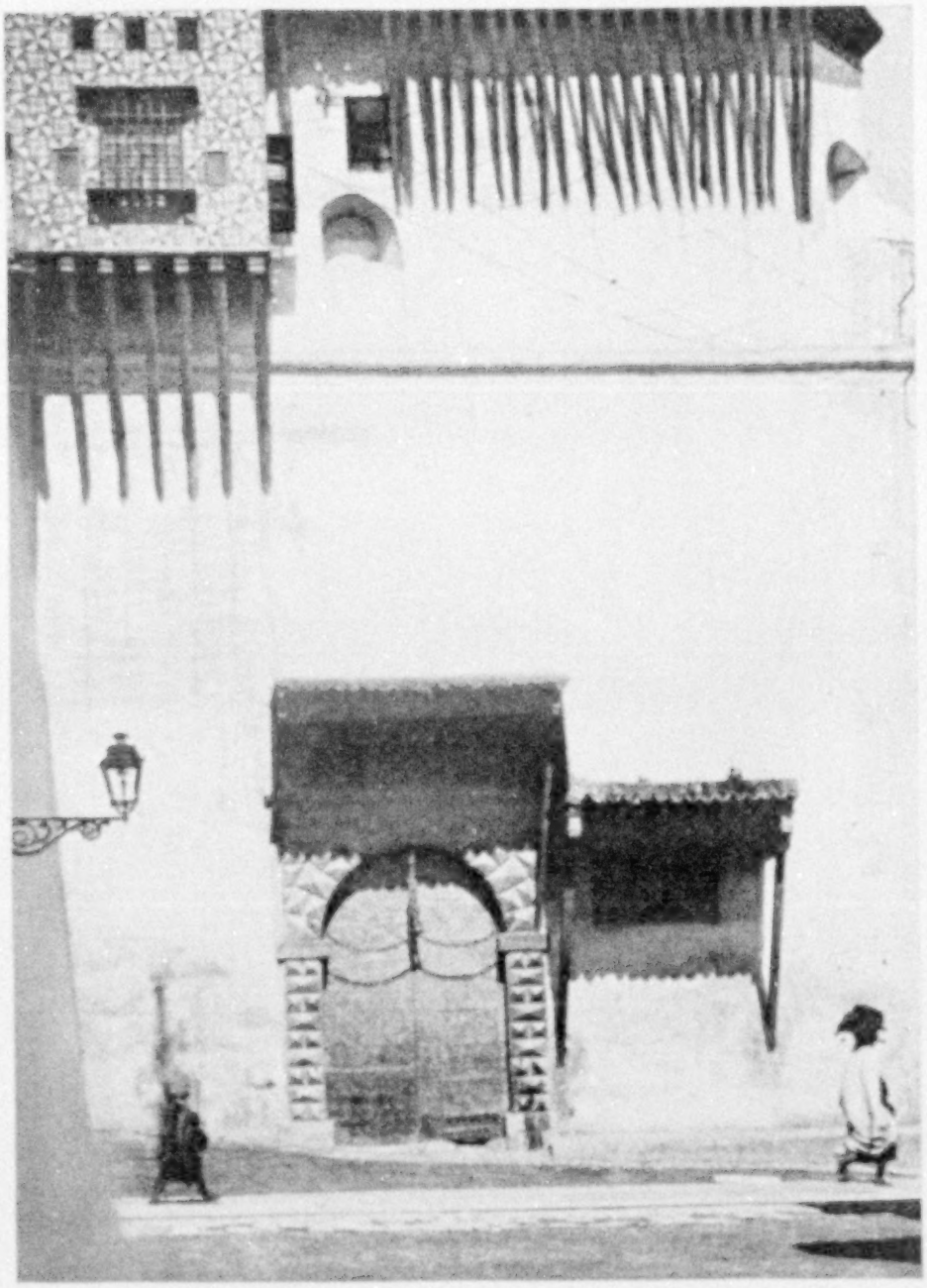
But the glory has departed; pasha and pirate have had their day, and their mansions, too, have fallen from their high estate. Instead of one rich man with his harem of silken-clad wives of many races peopling the chambers that open on to the tiled galleries and his wretched slaves filling the dark cellars and noisome dungeons below, a dozen or more poor families—Arabs, Jews, Maltese, Spaniards—now crowd into the one-time palace. Often the beautiful courtyards are turned to utilitarian purposes, and a carpenter's bench or a grocer's counter replaces the marble fountain that once sweetened the air with tinkle of falling water.

Out again into the dark lanes and vaulted tunnels. Stand aside and let this porter pass. Bent double, he lurches heavily up the steep ascent, a band around his forehead helping to support the weight of the immense burden on his back. With his red cap twisted about with a dirty kerchief, his torn shirt and baggy trousers, his bare feet thrust into heelless slippers, he resembles—and is like to him in feature as in faith—a *hamal*, or porter, of Constantinople toiling up the equally steep streets of Stamboul.

PUBLIC BATHS ARE THE GOSSIP EXCHANGE

Out of a dark alley come two white-robed figures, veiled to the dark eyes that, lustrous and beautiful, shine under the black eyebrows and fair foreheads. Massive silver and gold necklaces hang on their bosoms, broad silver bracelets adorn their wrists, and heavy anklets surround the silk-stockinged ankles thrust into dainty slippers. Their henna-tipped fingers are loaded with rings.

With a lingering backward glance, these two enter slowly a carved marble portal leading into a hall walled and floored with flower-designed porcelain tiles. Inscriptions in French and Arabic tell us that this is the entrance to the Moorish baths, open to men until noon, to women in the afternoon. The fair ones flock to it, for it is their lounge, their club, their glimpse of social life, their Gossip Ex-



THE GATEWAY OF THE KASBA, THE SANGUINARY PALACE FORTRESS OF THE DEY OF ALGIERS

Once this pirate's lair was enriched with plunder exacted from the sea wolves of the Mediterranean by their tyrant chief (see text, page 206).

change—it and the Mohammedan cemeteries on Fridays.

NOISY MARKET DEALS CONCLUDE PEACEABLY

The narrow alley dives into another tunneled passage under the houses and emerges on a wider space, a market. Spread out on the ground or on rough stalls are meat, fruit, vegetables, bread.

Arab and Negro dealers shout out their wares and prices in Arabic and in French, while tall men in white burnooses, shrouded Moorish women, and dark-haired, bare-headed Maltese girls chaffer and bargain excitedly. Buyer and seller shake their hands in each other's face, scream with rage, call on Allah or the God of the Christians to bear witness, then quiet down and conclude the deal peaceably.

At the corner of the market place is an Arab coffeehouse. Outside, squatting on the pavement or seated on benches against the wall, are Arabs, Kabyles, Negroes, men of all classes and ages — merchants, small shopkeepers, clerks, laborers—conversing volubly, playing cards, dominoes, draughts, or merely sitting—sitting idly, vacantly, unconscious of those around them. No man on earth—Neapolitan *lazzarone*, Hindu ascetic, or Buddhist priest seeking Nirvana—is capable of such utter detachment from the world as the ordinary Arab.

A few of those gathered in front of the café hold tiny cups of coffee in their hands, taste it, drink it slowly, savoring every precious drop of the pennyworth of fragrant dark fluid. Inside, at the tiled, waist-high fireplace, the cook dips a small, long-handled measure into the steaming copper pot resting on a handful of red embers and fills the cups for the bare-armed attendant to take to customers seated on benches or huddled on mats in the interior of the establishment.

The walls are scrawled with crude drawings of mosques, palm trees, tigers and elephants—these last by an artist who had evidently never seen either animal—or chromos of French presidents and European royalties.

A gray-haired, wild-looking man in rags, hung round with the skins of small

Photograph by Maynard Owen Williams

THE INNER HARBOR FROM THE BOULEVARD DE LA RÉPUBLIQUE (SEE, ALSO, PAGE 226)

All day long up and down this boulevard and the streets of the modern city passes the pageant of Algerine life in its color and picturesqueness of veiled, white-robed women and brown-faced men in flowing burnooses, of bronzed Zouaves in red-braided dark-blue jackets, baggy trousers and red fezzes, and scarcely darker Tirailleurs Indigènes in a similar uniform of a lovely turquoise-blue shade, of smart Chasseurs d'Afrique and scarlet-cloaked Spahis on their small white horses, of fat Jewesses and pretty French midinettes, of red-trousered officers and black-coated civilians.

animals, strums a one-stringed guitar made from the shell of a tortoise. He enters the café and, half shambling, half dancing, holding out a hand for money, wanders among the customers. As he moves he sings in a high-pitched, nasal voice, and the contrast between the Eastern love song and its singer is striking.

In better establishments, situated nearer the French quarter and patronized by well-to-do Arabs, one often finds a superior orchestra. Three or four black-coated, white-collared gentlemen in red fezzes play strange instruments—a big guitar, a large drum called a *tcboul*, a long one, the *derbrouka*, similar to an Indian tom-tom; a *ghaïta*, a sort of flageolet shaped like a doctor's stethoscope, and perhaps a tambourine—the while they sing in nasal tones. The burnoosed or frock-coated customers, many of them educated in French schools, listen in appreciative silence to music that to the European ear sounds discordant.

To the poor native the café is a club, a hotel, a home. He brings his crust of

THE INNER HARBOR OF ALGIERS, BUILT IN A. D. 1518 BY CHRISTIAN SLAVES

The arcaded Moorish house, once the residence of the Turkish commander of the harbor, is now the French admiral's house. The polygonal bastion on which the lighthouse stands is all that remains of the Peñón, the fortress built by the Spaniards in 1510 to dominate Algiers.

© Lehnert and Landrock

AN ALGERIAN BEDOUIN TYPE

A SHREWD PRODUCT OF THE CITY STREETS

Photograph from Levasseur

AN ALGERIAN MUSICIAN

Clad in rags, but usually wearing a smile, these street minstrels wander from café to café, making weird sounds on their roughly fashioned guitars.

bread, his handful of onions, to eat there; he sleeps on its benches or on the pavement against its wall; and once or twice a day he spends two cents in it for a cup of coffee.

TO THE ARAB THE CAFÉ IS CLUB, HOTEL, AND HOME

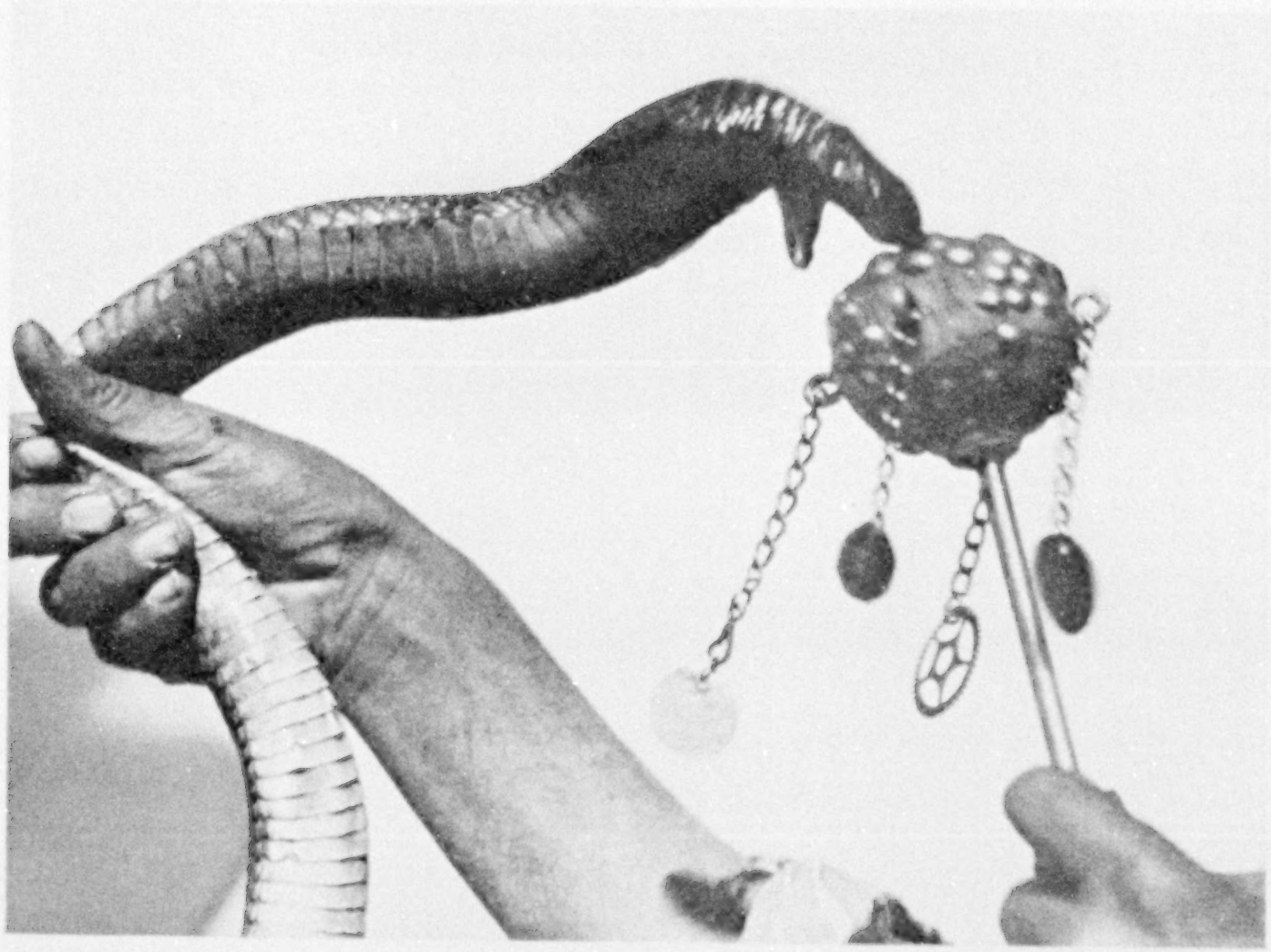
From the market place lead narrow streets and, as in such Eastern cities as Cairo, Tunis, Delhi, and Canton, each is lined with shops devoted to one trade. Down this one are the tailors. In the square holes devoid of counters, tables, or chairs, white-burnoosed, bearded men resembling Biblical patriarchs squat on the floor and sew furiously.

In the next street brass workers hammer at bright pots and tall water vessels, denting patterns into them with sharp-pointed instruments struck with mallets. Tinsmiths display piles of saucepans and coffeepots. In the tiny shops of the next crooked lane cobblers stitch rapidly at the native's easy red-leather slippers, or work beautiful designs with gold and silver thread and spangles on dainty shoes for women.

Here is a break in the trades-union character of the shops. Outside this one a small crowd eagerly watches the movements of a youth seated before a tiled stove running up into a pointed chimney. A small table stands beside him. In a dish he mixes a white batter, rolling it, pulling and twisting it with nimble fingers, then dipping it into oil and placing it in the stove. His hand dives in once or twice to turn the morsel.

Then with tongs he draws out a crisp, golden puff, places it on a small square of newspaper, thrusts it into an eager, outstretched palm, and receives a coin. The buyer turns away, contentedly munching the succulent titbit, and his place is taken by another expectant purchaser.

The next street blazes with color. Here black-bearded Mozabites in flowing Arab garb—heretical Moslems from the Mzab district in the Sahara—or hooked-nosed Jews in semi-European attire display a wealth of rainbow-hued, long-fringed silk shawls; gay-colored bodices and jackets; skirts and other garments in pink, blue, yellow, red; leather belts gold-buckled and



Photograph by Merl La Voy

A COBRA STRIKES AT A BALL

Snake charmers are numerous in market places and bazaars of Algiers.

heavy with bullion and gold embroidery; white wool or silk and wool *gandauras* (long gowns), and crimson burnooses worked with gold or silver.

Then comes the Street of the Jewelers! Many of the shops have glass windows displaying massive silver bracelets three or four inches wide, gold and silver earrings several inches in diameter, huge necklaces of broad, beautifully designed flat silver and gold ornaments, filigree rings, heavy anklets—truly a street of delight for womankind.

THE "HAND OF FATIMA" BRINGS LUCK

And always there are innumerable tiny gold or gold-washed hands inset with coral or turquoise, the universal Arab mascot, known as the *Kamsa*, Five, because of the five fingers. Europeans term it "The Hand of Fatima," daughter of the Prophet. Every Arab woman—and many a foreigner—wear one, and on the wall of every Moorish house is its luck-bringing imprint. It is borne on the company colors of the regiments of *Tirailleurs Indigènes*, the Arab and Berber infantry skirmishers.

Dazzling white in the brilliant sunshine, the walls of a mosque almost blind one by their glare. But enter. You pass into dark, cool shadows, into a silent interior, bare and restful. Through the past centuries bearded Moslems with the blood of the Unbelievers red on their hands have gathered here to bow down toward Mecca and beg Allah's aid in fresh crimes. Yet they thought them meritorious deeds, by the truth of the Most High! And every Friday the Faithful come here still, and who shall say that none of them mutter curses in their beards upon the Christian dogs that rule them?

And the tall houses in the narrow lanes near the mosque harbor the Tribe of the Painted Daughters of Joy.

Of many nations are they: Arab women in gay kerchiefs, gaudy jackets of brocaded silk, and baggy trousers; Berber girls from the mountains of Kabylia, ar-

rayed in the colors of the rainbow; Ouled Naïls from the Ksar of Boghari, with necks encircled by chains of gold coins, their future marriage portion; stout, bright-eyed Jewesses from Oran and Constantine; Negresses from the desert oases, thick-lipped, fuzzy-haired, laughing, happy; and Christian women, too, alas!—French, Spanish, Italian.

From marble-pillared doors and grated windows the venal smiles are showered on the hesitating wanderers from many oceans.

At night this quarter is an island of light in the deep sea of darkness of the black alleys, where at long intervals an occasional, feebly glimmering lamp serves to make the gloom only more dreadful for the momentary relief. And the sound of barbaric music, the shrill voices, the high-pitched laughter of women, and sometimes an agonized shriek of tragedy, shiver the silence of the sleeping town.

THE OULED NAÏL GLITTERS WITH GOLD AND SILVER

From the open doorway of a Moorish café light streams out into the dark lane. Inside, a throng of seated Arabs in costly silk and woolen garments or in rags gazes eagerly toward the end of the long room, where, on a raised platform, a gaudily attired woman dances to the strains of weird instruments.

Her face is whitened and rouged, her lips carmined, her eyebrows blackened, her cheeks and chin adorned with spangles. In her ears are gold or silver earrings, hoops several inches in diameter; across her forehead and about her throat are bands of gold coins of many nations. Around her neck are necklaces of coins or beads from which immense ornaments dangle. Massive bracelets and anklets, some six inches broad, some hinged, studded with colored stones, adorn her bare arms and ankles. Her feet are naked and her toes, like her fingers, are stained with henna.

And her costume! No words can do it justice. Her head is swathed in a lovely, rainbow-hued, long-fringed silk shawl which streams down her back. In a corner of it her hair is tied, except for the plaits, with colored ribbons hanging down her cheeks.

Over an innermost gauze garment are two or three silk vests of palest pinks or greens or yellows, and above these a beautiful, rose-tinted brocaded silk jacket covered with transparent silver tissue and heavily embroidered with silver bullion. Her waist is swathed with a gold-tissued pink silk sash, and over it a gold-embroidered red leather belt. She wears wide trousers of pale blue silk hanging baggily over the slender ankles.

POETRY OF MOTION TO THE ARAB TASTE

Her dancing! She moves on her toes, but barely raises them from the platform. In her hands she holds a silk handkerchief behind her head or waves it occasionally in the air. But feet and hands, legs and arms, do not enter much into the dance; she performs chiefly with the muscles of her neck, breast, abdomen, and hips.

All her violent motions keep time with the strange music of pipe and flageolet and tom-tom, while five or six other dancers, as gaudily dressed, clap their hands or utter little cries at intervals.

An Arab musician—noseless, disfigured, hideous, a long cylindrical drum slung under his arm—springs up from his chair and dances wildly toward her, beating his instrument with fingers and palm as he hops in pursuit, while she glides past him and escapes with a lissome movement.

The eyes of the interested spectators sparkle as they gloat on the dancer's charms and movements. To them she is the poetry of motion, but to a European she is almost repugnant.

AN OPEN-AIR BARBER SHOP

The crowding houses of the city end. Across the road is a scarped hillside, with grass, gardens, and trees. In a small open space native barbers shave the scalps of clients or squat beside their chairs waiting for trade, while their tools—razors, scissors, clippers, mirrors—are laid out ready on the ground.

This open-air toilet saloon is a strange sight for the tourist, but does not gain a look from the passengers in the electric trams passing within a few yards of it.

Suddenly one come upon tombs and the ground falls sharply away. The eye ranges over the deep valley of Bab-el-Oued, with its gardens and houses, to the

© Elmendorf, from Galloway

A STAIRWAY MARKET

The lack of level spaces does not deter the Algerian trader. He pitches an awning on the stairway streets and displays his "business as usual" sign before it. These stands are near the fish market of Algiers.

bright-red scars of quarries and cliffs in the green hillside opposite, crowned with the domes of the famous church of Notre Dame d'Afrique. It faces across the Mediterranean to its sister, Notre Dame de la Garde, on the height above the harbor of Marseille.

Here, where one stands on the summit above the steeply descending pathway, are the densely crowded graves of the Arab cemetery of El-Kettar. A very few are marked with white domes. Most of them have thin white stones at head and foot; some are but green mounds. A gravedigger in a garment of ragged sacking and a wide-brimmed straw hat is digging languidly, while a couple of urchins stare with interest at brown bones and a skull in the mold that he has thrown up.

Across the drawbridge a small procession of natives in red fezzes and coats and trousers follows toward the cemetery a man in a worn burnoose. He carries in his arms a tiny packet wrapped in white cloth and covered with a gold-fringed, parti-colored silken pall. Beside an open grave he stops, pulls off the cloth, and lays his burden tenderly on the ground. He raises his hands to his head in prayer, while his friends seat themselves on adjoining mounds, light cigarettes, and gossip unconcernedly.

The gravedigger joins the party. The sorrowing father lifts up the tiny body of

Photograph by Merl La Voy

ORANGE PEDDLERS IN THE NATIVE QUARTER OF ALGIERS

Fruit dealers have no stands or stalls, but simply spread a cloth on the ground, arrange their offerings, and rest until customers arrive.

his son—it must be a boy, for a girl would be treated with scant ceremony—and lays it gently in the shallow grave. While the earth is being thrown in, he sits with hands stretched out, palms uppermost, and chants in a high-pitched tone, while his friends, seated or standing, some smoking, but all with similarly outstretched hands, interject responses.

In a few minutes the simple funeral is over. The friends go off chatting gaily, while the father, the gold-fringed pall over his arm, accompanies the sexton to pay for the little grave.

THE KASBA, HOME OF PIRATE LORDS

On this sad Garden of Allah the walls of the Kasba look down. In this palace, fortress, prison the last Deys of Algiers shut themselves away from their discontented subjects and the guns of their stronghold frowned threateningly on the murmuring city beneath. Here the Pirate Lords, surrounded by soldiers and slaves, lived out their days in debauchery and cruel tyranny. In 1830, however, the last of them, Hussein Pasha, saw from his windows France's avenging squadron maneuvering in the bay below and her brave soldiers swarming up the wooded slopes of El-Biar above. His rule of rapine was at an end.

But the taking of the city of Algiers was only the prelude to the long-drawn-out conquest of Algeria. Wars, rebellions, the hesitation of politicians, delayed it. Only after the Franco-Prussian struggle of 1870-71 did a government in Paris decide that the country must forever remain under the Tricolor.

At the cost of much blood and treasure the task was achieved; and, just as the pirate city became the beautiful Algiers of to-day, so a land sunk in barbarism, cruelty, and lawlessness developed into a Department of France, rich, fertile, and prosperous.

To-day, from the walls of the Kasba, one looks down on a larger, grander city than Algerine pasha ever knew, on a splendid harbor where a great fleet may ride at anchor.

The White City of Algiers lies between blue sea and green hill, like a pearl set among sapphires and emeralds in the Crown of France.

THE WARFARE OF THE JUNGLE FOLK

Campaigning Against Tigers, Elephants, and Other Wild Animals in Northern Siam

By Merian C. Cooper; Photographs by Ernest B. Schoedsack

Co-authors of "Grass" and "Chang"

TIGERS growling, elephants trumpeting; the panther scream and hyena brawl—all under the big, hot, stuffy tent on a summer's day, with that strange, unforgettable smell of the menagerie. In the runway before the cage bars, a surly keeper with his mop and bucket—and a printed warning not to feed or annoy the animals!

That is as close as most of us ever get to the man-killing creatures of the jungle.

Yet who has not dreamed, especially in youth, of some day plunging far into dense tropical forests, heavy rifle in hand, followed by faithful but frightened naked native gun-bearers, there to pit one's courage and skill against savage jungle beasts!

Most of us, alas, must ever dream and keep right on selling real estate or motor cars, pulling teeth or practicing law. All we really know of dangerous wild beasts, of how they live, fight, kill their prey and are trapped by wily jungle folk is what we read in books, or see in "movies."

The stench of menagerie, the glimpse of weary, moth-eaten beasts in park pens, or in steam-heated cages at the zoo, keep the imagination of childhood ever active. But, upon the free, natural life of wild beasts in the forest primeval, civilization closes the door

THE TIGER DOMINATES THE LIVES OF THE LAOS

Yet to me, happily, came the realization of a lifelong dream. With Ernest B. Schoedsack I spent a year in the far jungles of Siam, observing, trapping, and picturing wild animals—shooting them only when necessary, to save my life or that of my companions.

It was essential to our job of making a sort of folklore picture tale of the Laos of the Nan district in the north that we should learn as much as possible of their attitude toward the jungle and its beasts.

The longer we worked among these people the more evident it became to us that they did not think of the jungle simply as an enormous growth of trees, bamboo, and underbrush; but thought of it, rather, as some huge personified force; likewise, they did not think of the jungle animals as only wild beasts, but thought of them also as beings with definite thoughts and personalities.

Up in the Lao country around Nan this attitude of the native was particularly strong toward the tiger. The tiger at times almost dominates the thoughts and lives of the people. This beast is the power, the dread, the blood-lusty personification of the cruelty of the mighty jungle itself, of this jungle which surrounds the native villages and which, to their untutored eyes, seems to sweep on into infinity.

I have been in villages where the people scarcely dared speak the name *suar* (tiger) because of their superstitious fear that the devil-spirit which rides on the tiger's back might mysteriously hear them and, resenting it, take revenge.

There is a basic reason for this fear: the tigers of the Nan district have a frightful reputation as man-killers, and it is a well-deserved one.

I have been in jungle districts in south Siam (and I am told that in parts of Indo-China and India there is the same feeling) where the tiger is looked upon in an almost friendly spirit, and where only in rare instances are the village folk harmed by him. But this is not the case in the Nan district; there the tiger is feared as the cunning devil and man-killer that he is.

THE NORMAL TIGER IS AFRAID OF MAN

The longer we lived in Nan the more interested we became to find out why the tigers of this district killed human beings so easily and so frequently, and why tigers

MAKING SKYROCKETS WITH WHICH TO PRAY

These natives of northern Siam are pouring powder into joints of bamboo which they will shoot off in religious ceremonies (see illustration on opposite page).

of other districts did not. For many months a good part of my time, energy, and thought was concentrated on the trapping and handling of tigers, and though, as a rule, I was unsuccessful, I nevertheless gradually learned more and more of the ways of the great cat, until, at last, certain convictions, rightly or wrongly, became implanted in my mind.

The first and foremost of these is that no tiger is naturally a man-killer. The normal tiger has an instinctive fear of man. This normal tiger is a game-killer. Deer, wild pig, and the like are his natural prey and food.

But where man invades the jungle in numbers, one finds a second class of tiger. The spread of the rice fields and man's own hunting thin out the game, and it becomes increasingly difficult for a tiger to kill his normal food. Also, he sees another kind of food always near at hand, in the villagers' cattle.

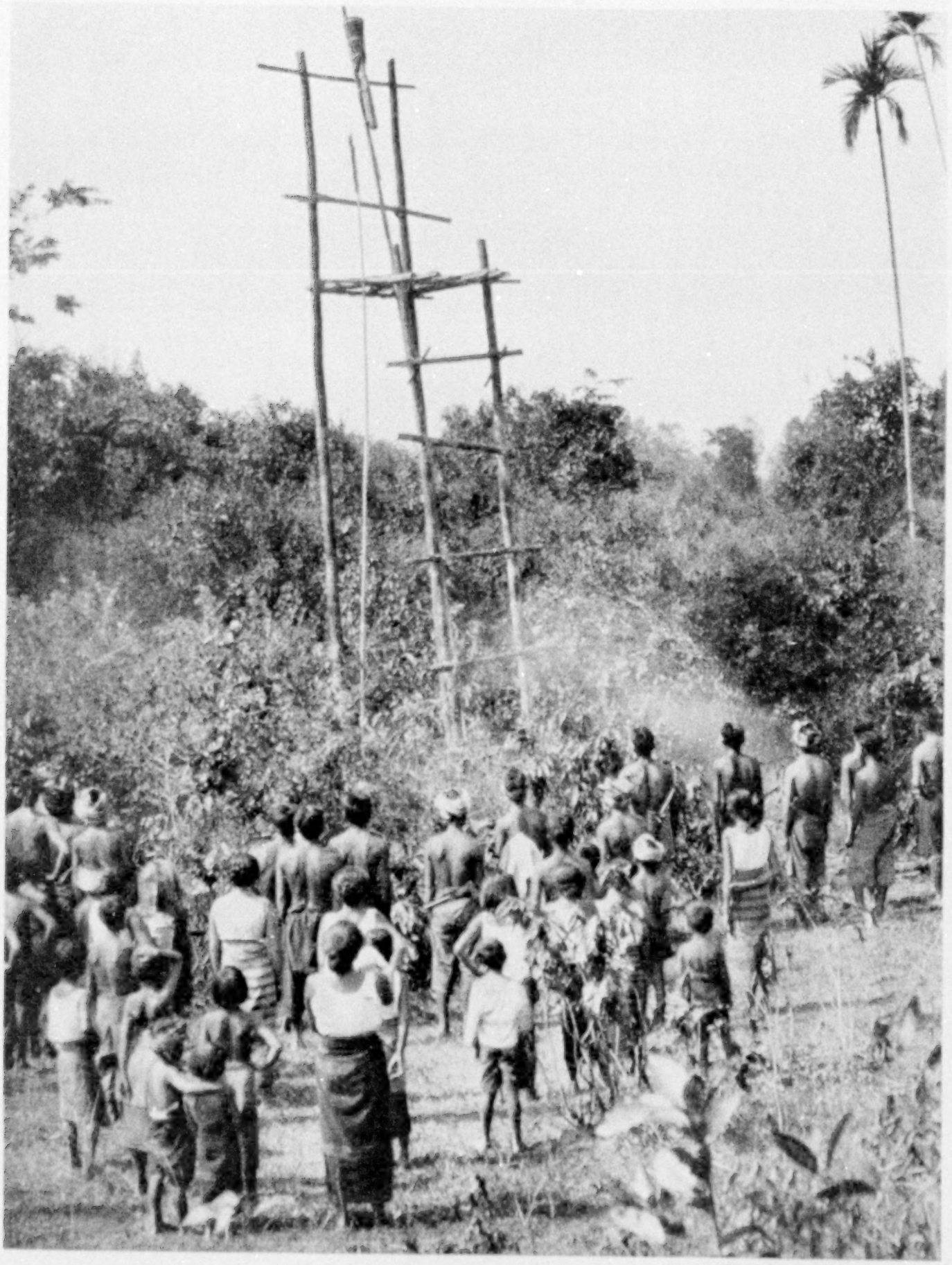
Thus the tiger becomes a cattle-killer, living either entirely on cattle or supplementing his game diet with such an occasional kill. In some districts the natives submit almost tamely to this killing of their cattle by the tiger, as if it were a weekly tax paid to the "King."

The third class of tiger is the man-killer. My belief at first was that the only man-killers were those individuals which, because of injury or old age, had become too slow easily to catch game and too weak easily to kill the villagers' buffalo, and which, therefore, in hunger and desperation, had attacked man. Then, discovering how easy it was to kill a human being—how slow, how feeble, how soft a creature he is—they had turned to man-killing as a regular practice.

TIGERS TAUGHT MAN-KILLING AS CUBS

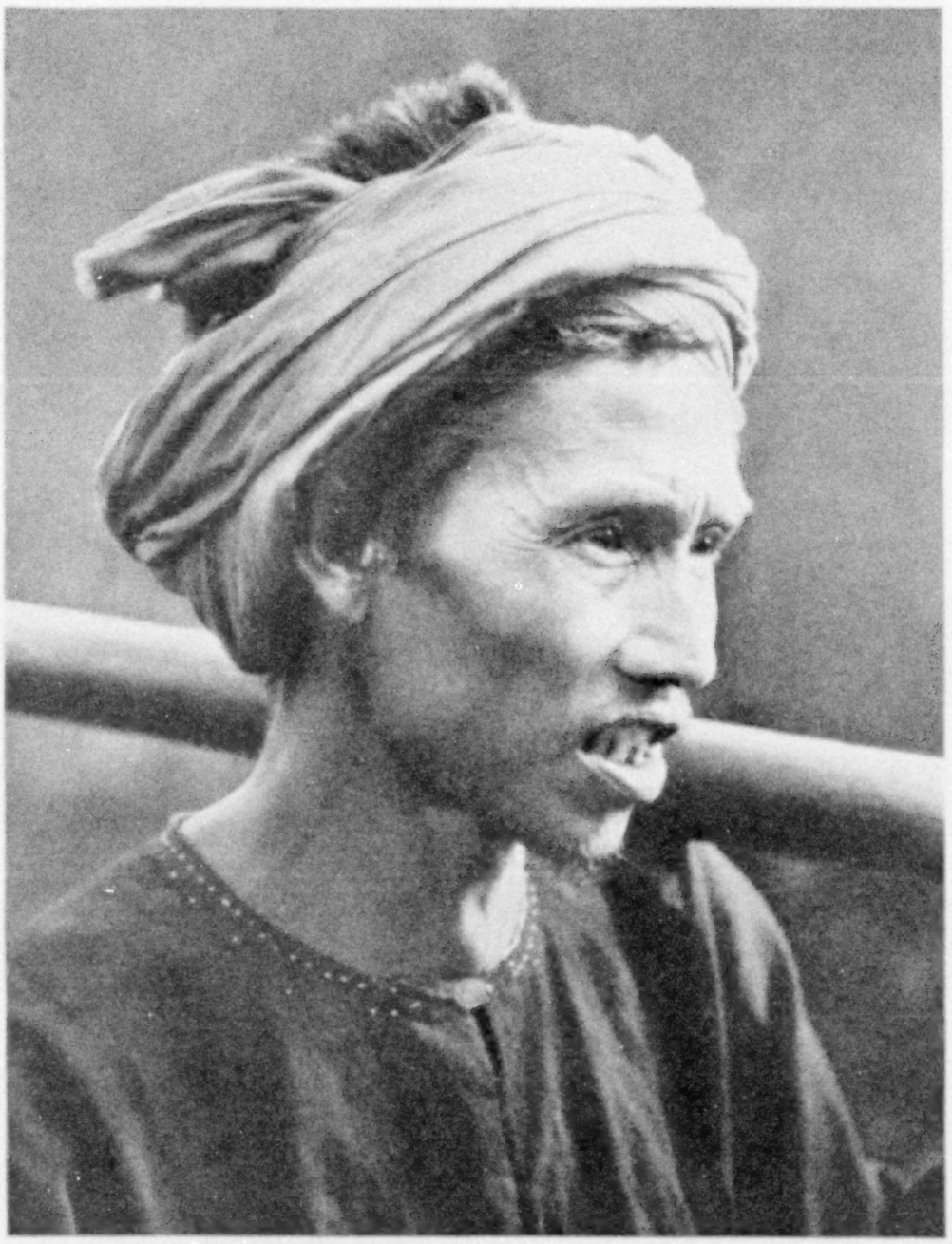
After a time, however, it seemed to me impossible that this theory could be entirely true in the Nan district (though I still think this the main reason for tiger man-killers); there could not be enough injured and old tigers.

I realized that one man-eater alone could do an immense amount of killing; patrolling a wide area; killing at one vil-



PROPITIATING EVIL SPIRITS

A lofty platform has been erected from which a crude skyrocket (see illustration on preceding page) is to be fired as part of a religious rite. The Laos are a brave people when dealing with material dangers, but they dread the *pees*, or spirits of the dead, and this is one of the methods employed in buying off or scaring away the evil ones.



A MAN OF THE MOUNTAINS

The Laos, who are numerous in Siam, particularly in the highlands of the north, are not unlike the Filipinos in complexion and physique. They are essentially agriculturists and have few industries. Their women are in no sense mere drudges, but occupy a high and respected place in the home.

lage one night; appearing like a phantom some days later at a second village many jungle miles away, to kill again.

Nevertheless, man-killing seemed too prevalent in Nan to be the work of but one or two tigers, for the records show several hundred people to have been killed and eaten by tigers near Nan in the past few years. I obtained these figures both from the governor and from Dr. Hugh Taylor, a man of impeccable honesty, the eldest of the four American missionaries who were the only whites in the Nan district.

Also, in my small expeditions through the jungle, I found scarcely a village near Nan which had not lost in the previous year from one to four people, and in some villages the number was greater than this.

I was at last driven to the conclusion that some of these man-killing tigers were probably full-grown, fit, uninjured, and not too old, and I became convinced that the reason for this was that some injured female had taught her cubs man-killing; that these cubs when grown had followed the habit and possibly had passed the nice tradition on to their children.

TRAPPING THE MAN-EATERS

We tried our hand at trapping these man-eaters. We had a staff of our own native trappers, and conscripted the villagers wherever we traveled. We were almost constantly defeated, partly because of the cunning of the tigers themselves, but quite as much by the superstitions and fears of the natives.

Their dread of the tiger is easily understood. It was one thing for me to go trekking through the bush, armed with a modern rifle, followed by five or six carriers, making a party so large that it would be a brave or hungry killer indeed who would attack unprovoked; it was another thing for a native to live in the heart of the jungle, in a frail bamboo hut, where, half-naked, sometimes alone, armed with only his knife of soft iron, he must one day meet the catlike spring of an enormous beast, terrible in its strength, quickness, and destructive power.

No one who has seen only the zoo tiger

can have any conception of the beauty, strength, and energy of the full-grown male of the wilds. Its great muscled shoulders, gorgeous coat, huge white teeth, its swiftness in exploding into action — all animated by the cruel spirit reflected in the glare from its blazing eyes— give it the semblance of the God-Devil which so many of the natives believe it to be. Almost any one living the life of a Nan villager would feel as he does about the tiger.

Yet our appreciation of the natives' fears did little to soften our chagrin when twice in far villages the natives killed tigers in our traps before we could get there to bring them in alive, so great was their dread. And more than once we cursed native carelessness and folly when tigers escaped from traps built by our native assistants because the villagers feared to go near and block the animals in securely after they had been trapped.

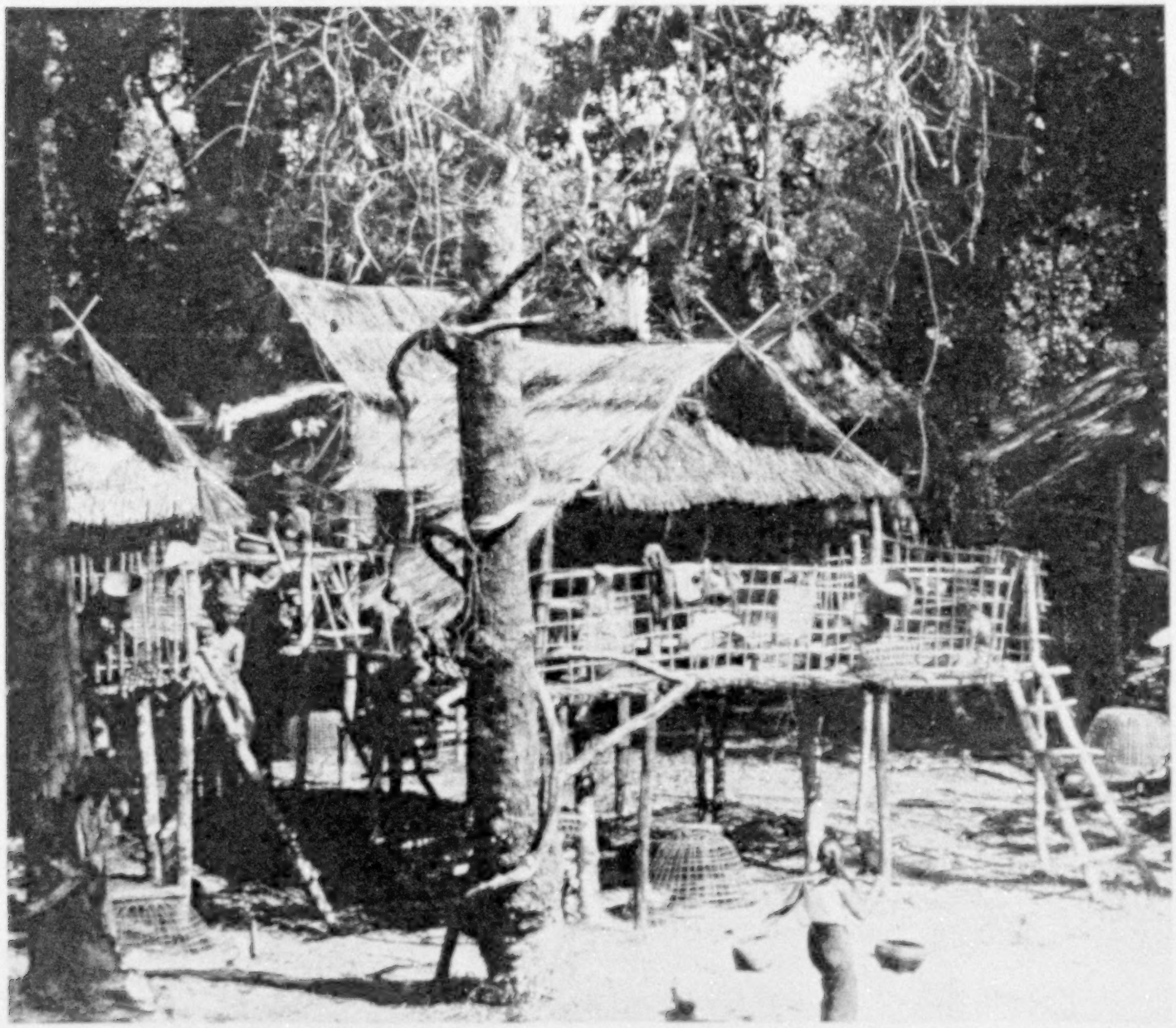
CHILDREN OF NAN

And how often, too, we raced along some jungle trail on horseback or on foot, or went up the river by boat, stirred by the news that a tiger had been caught— "head as big as a barrel, as tall as a horse, O Ni"—only to find the trap's real occupant was a snarling leopard!

TIGER LORE OF THE NATIVES

Yet, despite many failures and despite the final ludicrous means which we adopted to finish the tiger sequence of our picture tale, I became more and more interested in tiger lore—intent to listen to tigers calling in the night, to know of the tiger's hatred for crows, which so often loudly warn the weaker ground animals of the coming of the jungle killer; to know that the villagers believed a tiger which scratches the ground (and we found many such marks) is strong and brave; to know that every notch at the back of a tiger's ear is believed by the natives to be a sign of a man killed; that a tiger is supposed to kill a man by holding it in the embrace of his forepaws, claws sunk deep in, thereby breaking the man's neck, and by sinking his teeth into head or chest; that a tiger follows regular paths, like jungle "streets" to him; that, unlike most cats, he is a good swimmer and likes water; that tigers in the foothills move in regular seasonal migrations.

The natives believe that in dry weather the tigers go to the hills, where, the jungle



SECOND-STORY BUNGALOWS ARE THE MODE IN SIAM

In the jungle villages the houses are raised high, on stiltlike supports, to afford the occupants protection from prowling wild beasts. In the vicinity of Bangkok and other river towns they are similarly raised to escape high tides and floods (see page 264). The homes of the poorer classes are usually made of bamboo and woven thatch.

being then thin, they can easily catch the game, which also has moved up from the sun-beaten valleys because of the drying up of the foliage there. They believe, too, that the tigers become fat and happy in the hills, but that in the wet seasons they grow thin and dangerous, and descend to the valleys, where the villagers suffer from their depredations.

"A TIGER WILL NOT KILL A CAT"

A hundred facts and superstitions, mixed and stirred together in native thought, were happily sought after and considered by me at night after long days of work in the blazing sun. It was good then to have as a substitute for books the recalling of some question and answer, like:

"Will a tiger kill a cat?"

"No, Ni, the cat is the tiger's teacher; and will a pupil kill its teacher?"

Or, to recall a conversation with a stubborn village chief who did not like to keep our traps baited:

"Why will you not put a dog or a pig in the trap?"

"It is useless, Ni. The tiger likes only men."

"Well, then, why not put a woman in the trap as bait? You can spare an old one, no doubt?"

"Yes, Ni; we can spare many old, scrawny ones, but the tiger likes fat,

BANGKOK, "VENICE OF THE EAST," HAS HER OWN TYPE OF GONDOLA

These teeming small craft are usually propelled by a single oar, the boatman standing or sitting in the stern. Paper umbrellas are useful in warding off the fierce rays of the tropical sun.

pretty young girls, just like you and me."

Not, indeed, that a Lao would ever bait a trap with an old woman; but he, too, has his sense of humor.

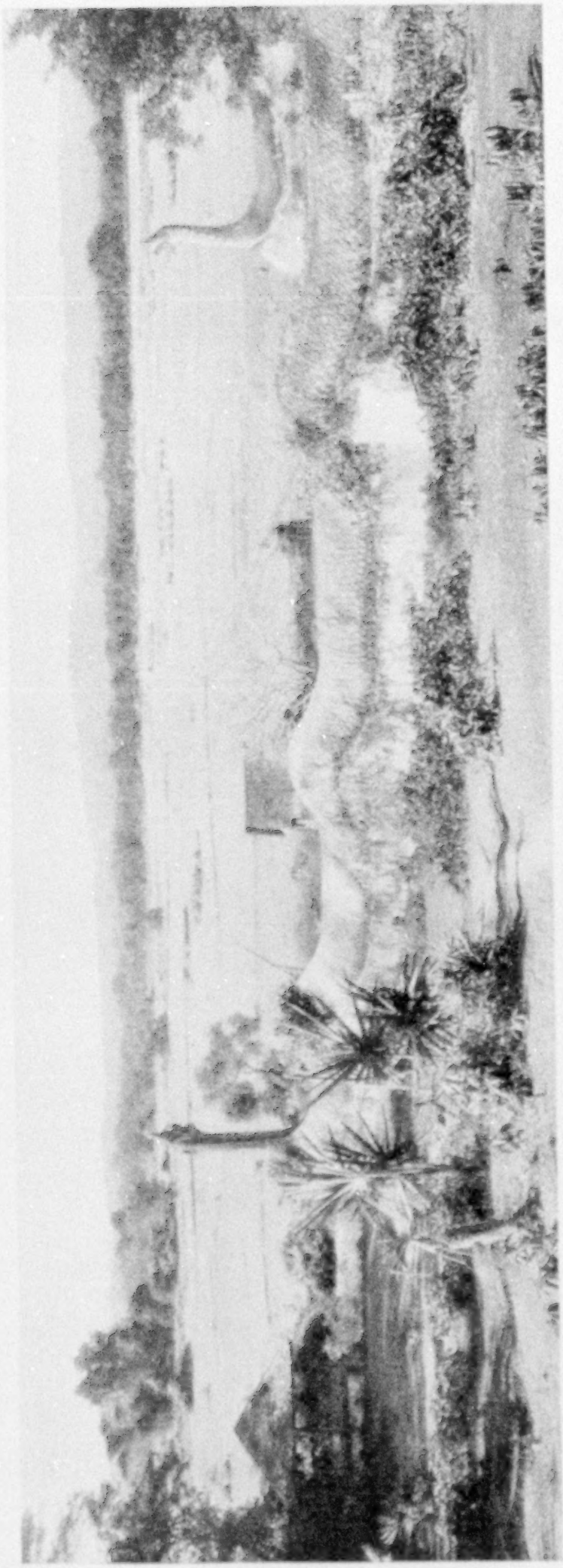
A TIGER TRAP BAITED WITH A PICTURE

The crowning stupidity, however, was witnessed by a young man named Brockmann, who went out on a short trip for the purpose of building and inspecting traps for us. He found one village with a fine large trap, but no bait. In answer to his indignant questioning as to why the trap had not been baited, he received this reply:

"Ni, here the tiger will eat only man. So we got a big colored picture of a man and put it in the trap each night for many nights. But the tiger never came after the man's picture, so we knew it was useless to bait the trap with only a dog or a pig."

And, indeed, Brockmann discovered that they had actually propped up in the trap some cheap print of a man for tiger bait!

It was often discouraging to come back after a trek through the jungle and again hear stories of a tiger that had killed men within the precincts of Nan town itself; of the two tigers which Dr. Taylor had killed some years before in broad daylight, within a hundred yards of our compound; of the killing of the brother of our cook by a tiger, just a few days before Schoedsack's arrival in Nan; of how a man had been killed quite near one of our traps, and then of how the villagers had thrust



TWIN DRAGONS FORM THE WALLS OF THIS BUDDHIST WAT (SEE, ALSO, PAGE 243)

The monasteries of Siam are built within an oblong space surrounded by a brick wall. Often the wall is quite high and the cells of the monks are built against its inner side. The tiles on the roofs of these cells constitute the scales of the great dragons. Within the monasteries the "Brethren of the Yellow Robe" pass their peaceful lives, subsisting on the bounty of the people and meditating.

the half-eaten body into the trap for bait, and of how, finally, the tiger had pawed the body out of the trap and escaped.

Stories galore of "tiger, tiger, tiger." But where were the tigers in our traps?

Our traps dotted the country. They were all basically of the same type—a sort of glorified rat trap, built of heavy logs, with the entrance through a low door at the front. A dog or a pig would be fastened inside a separate little cage, inside and at the rear of the trap. The tiger was supposed to enter to get at it; then, inside, to step on a treadle. This dropped the door, thus trapping the tiger. Only, we caught no tigers (see page 245).

We camouflaged our traps; we soaked them with chicken blood to kill the man smell; we tried all manner of bait—and, not a tiger! Leopards, yes, plenty of them; no trouble about catching leopards; but not a tiger.

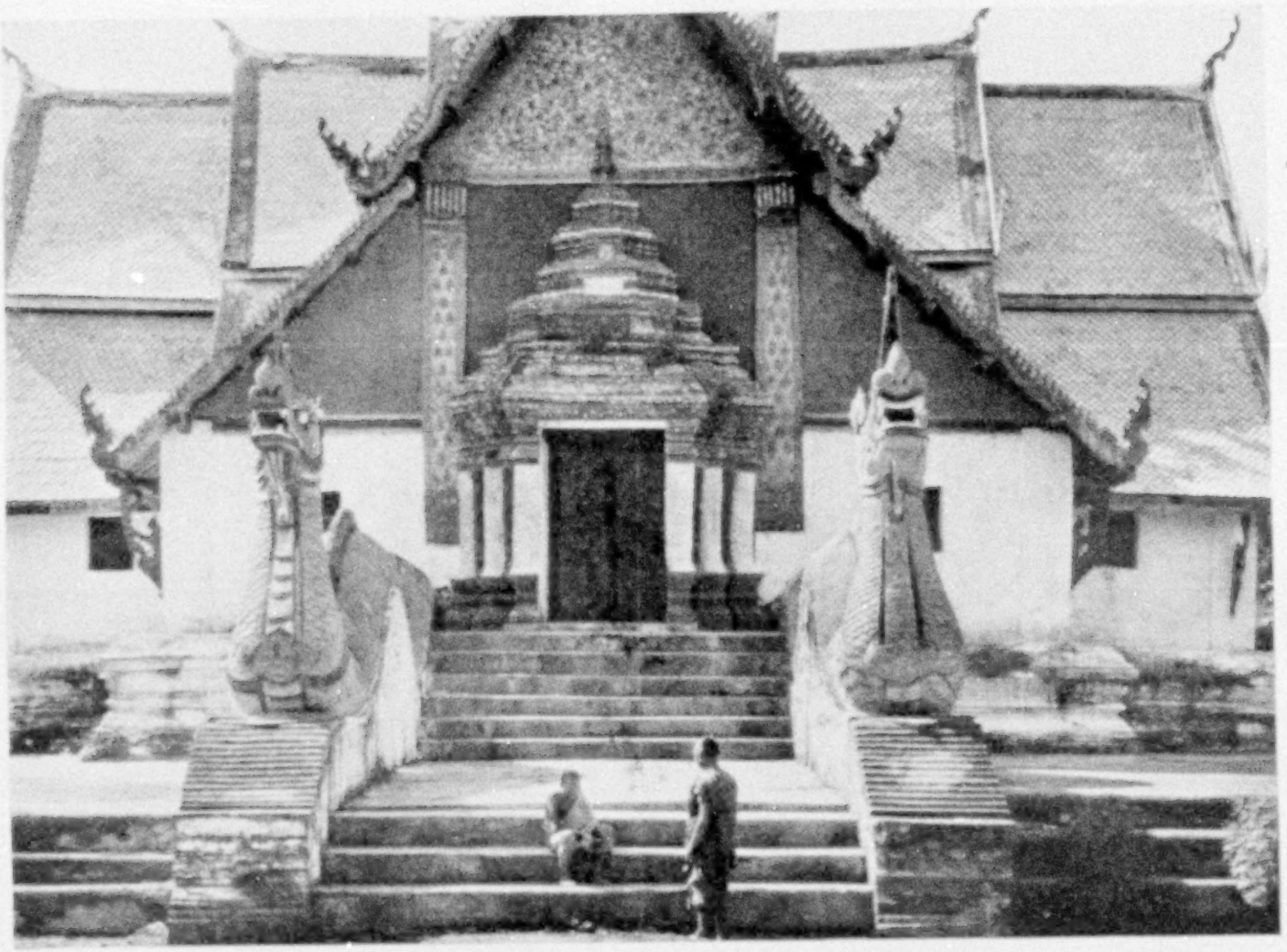
"TIGER, TIGER TRAPPED AT LAST!"

But one day, when Schoedsack and I came back across the river, we found our "boys" tremendously excited. *"Suar! Suar!* Tiger! Tiger!" they cried. A tiger had been caught in a trap in a village far up the river.

While Schoedsack prepared the boats and cage to send up the river, Dr. Douglas Collier, the medical missionary at Nan, a courageous, keen young man; Kru Muang, a wiry, slim young Lao, who acted as our guide, interpreter and counselor, and I rode off on horseback

THE NORTHERN SIAMESE WOMAN OPERATES THIS PRIMITIVE RICE-HUSKING MILL WITH HER FEET

Each Lao family has its own mill, which consists of a large wooden mortar set into the ground and a log pestle which is lifted by a lever pushed by a woman's foot. The pounded rice is the chief food for the family and also furnishes a bran which is cooked with certain weeds to make a special delicacy for the pigs.



THE WAT IS THE CENTER OF SIAMESE RELIGIOUS LIFE

A youth's education is not considered complete or his preparation for manhood sufficient until he has entered a monastery attached to a temple and worn the yellow robe of a Buddhist monk for at least a month or two. Unlike the usage in most other lands, in Siam a monk may be released from his vows and return to the lay world whenever he desires.

to cut across country in order to make the village that night.

Soon after we plunged into the jungle, riding along a rough, narrow trail, black night settled down upon us. Then the moon came up and now and then lighted our way.

Finally we came to a village. Everyone was excited. The natives had heard of the trapped tiger on ahead.

Between the tiger and us the way was very rough for night riding, but Collier voted to go on; so, with torchbearers in front and torchbearers behind us, we plunged ahead.

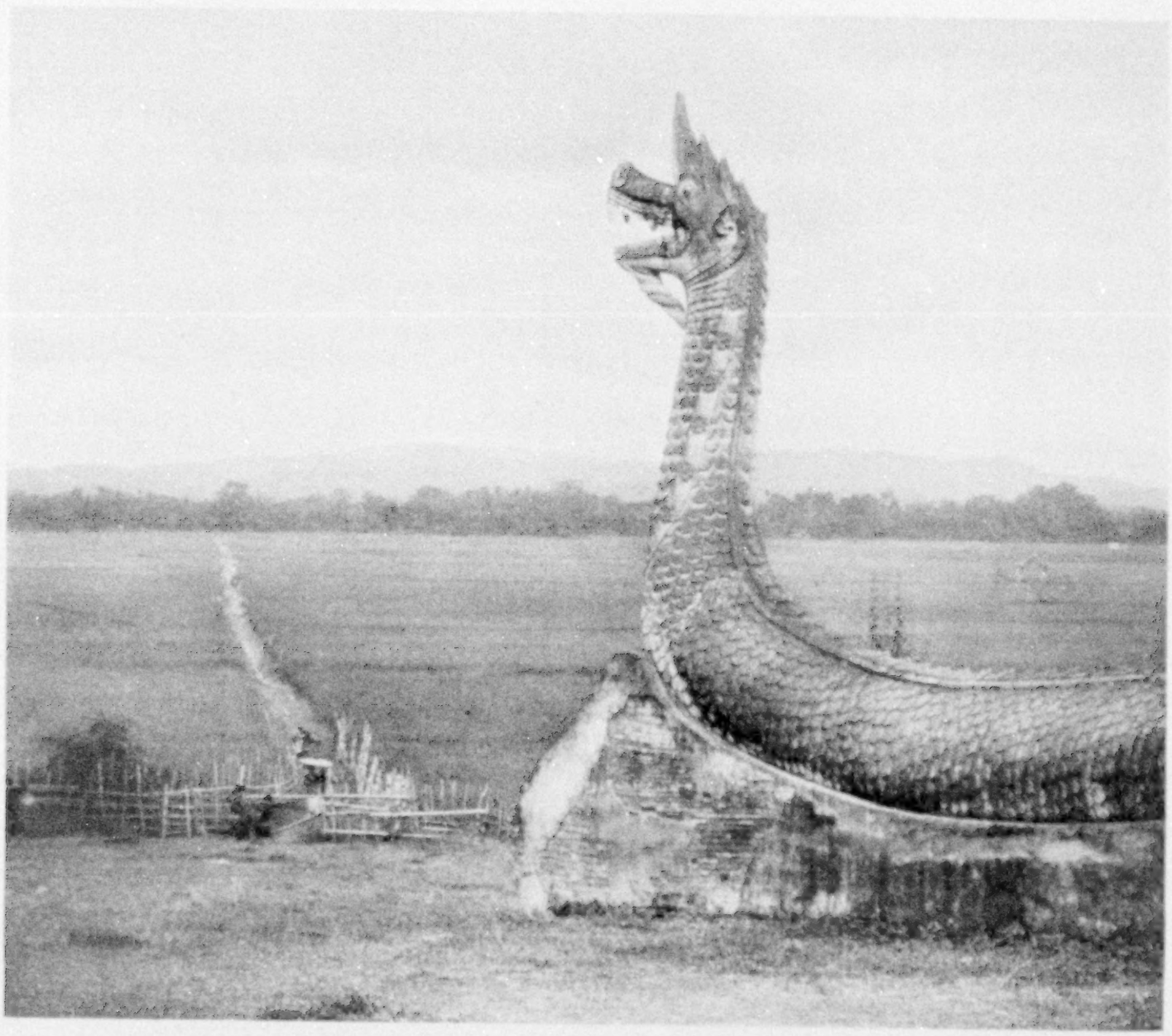
After following the river bank for an hour, we swung around a turn in the trail and approached another tiny village. We rode through it and came upon as weird a sight as I have even seen. Around great glowing fires sat and stood groups of half-naked, wild-looking fellows. The red-and-orange light played on their spears and swords, on their brown bodies, on their tousled shocks of black hair, and threw its eerie radiance on some huge black shape in the center of all.

We swung off our horses and drew near. We saw that this great irregular shape was, in fact, the trap; but now it was piled high with logs, which had been lashed again and again with native rattans, so as to double and redouble and double again its strength.

We stepped close to the trap, stooped and tried to peer between the logs. Then from the midst of it came a deep and coughing roar. It was the tiger, trapped at last!

"IT IS MR. CROOKED"

We threw our blankets on the ground near a fire and soon Muang came to us. "It is Mr. Crooked," he said, grinning broadly.



HE GUARDS THE RICE FIELDS OF NAN

The natives hold that the evil spirits must fear this dragon, since the fields he guards are among the most fertile in all Nan (see, also, page 240).

"Mr. Crooked!" That was a name well known in that little jungle world. Mr. Crooked was one of the famous man-eaters of the district, his crimes and his trail famed and unmistakable, for one forepaw turned in, and the mark of that crooked foot was often seen where some hapless native had been killed and eaten.

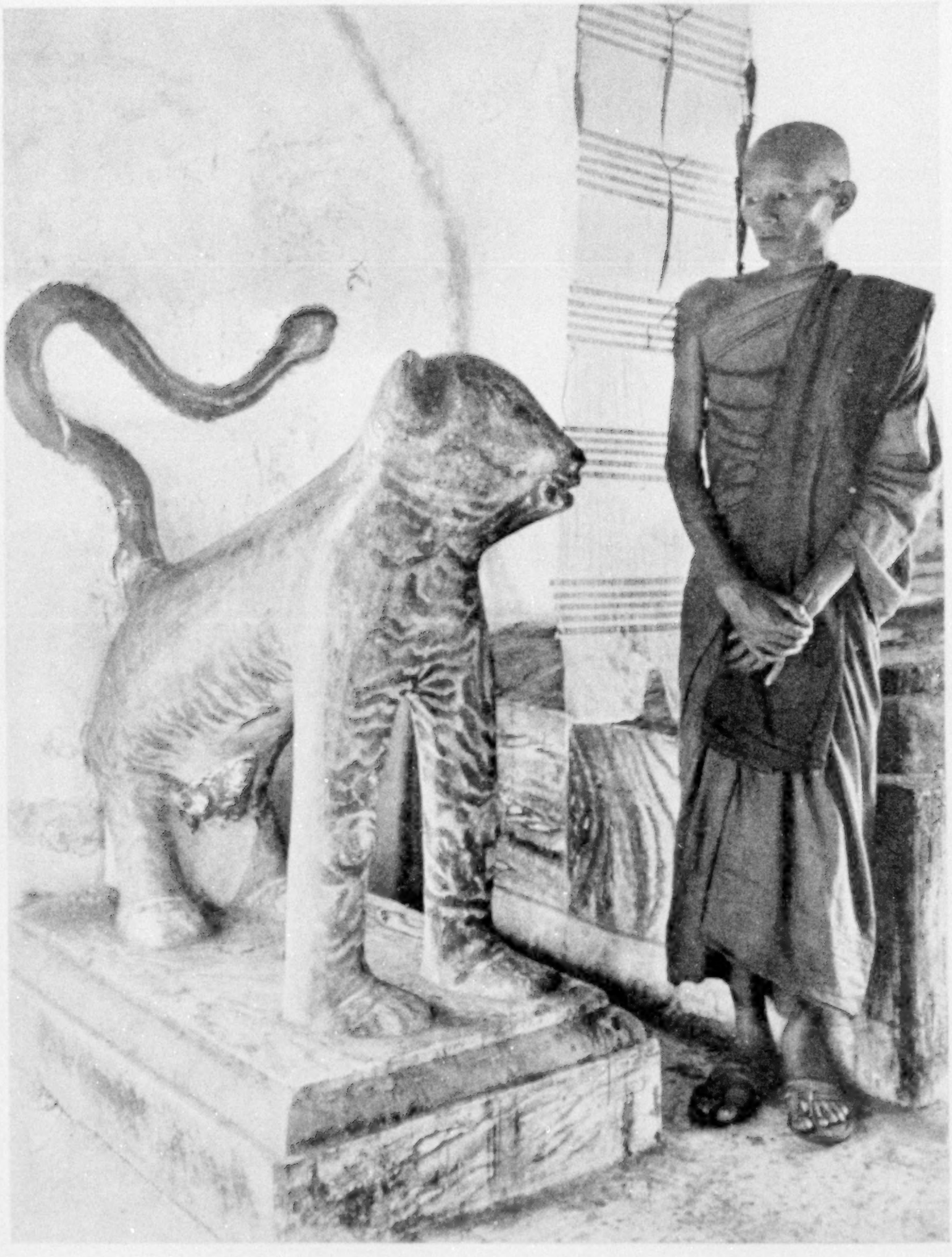
Next day the cage arrived, having been brought up the river. But the villagers laughed at it and said it would not hold a big rabbit. Indeed, it *was* too weak. But we strengthened it with a solid lining of small logs; then jammed its door against the door of the trap and lashed cage and trap together.

It was our purpose to open both doors and transfer the tiger from the trap to the cage. The villagers, however, put little trust in this arrangement, and when we were ready to open the doors the only village men near us were well up high trees.

TRANSFERRING THE TIGER FROM TRAP TO CAGE

Collier stood at one side of the doors, I at the other, guns ready. Muang and Tahn stood on top of cage and trap, respectively. At a word they lifted the two doors.

We waited, tense. Nothing happened. We waited longer. Still nothing happened. Finally, I put down my gun, picked up a lighted torch and thrust it into the back of the trap. At that, the tiger leaped forward the length of the trap and straight through into the cage.



A DEMON BECOMES A DEITY

Although nominally followers of Buddha, the Laos of Siam are primarily spirit worshipers. Because of its great strength, imposing appearance, and the sinister influence it exerts on their daily life, the tiger is supposed to possess a spirit and in some instances is worshiped on this account.

PREPARING A SURPRISE FOR THE LORD OF THE JUNGLE

Tiger traps are made of stout logs driven into the ground and lashed together. A dog, goat, or pig is placed inside in a smaller inclosure as a bait (see text, page 240). The tiger steps on a treadle as he enters the trap, thereby releasing a drop door and making himself a prisoner.

Down came the doors. Mr. Crooked was caged.

It was night when, by torchlight, we bore the cage down to the river, swung on poles resting on the shoulders of as many men as could catch hold. They lowered the cage into the center of one of the boats. It just squeezed in, for these boats are but long canoes, hollowed out of big trees.

We shouted to the villagers to catch us another tiger and started off.

It was pleasant now; our boys had brought little camp chairs for us, and Collier and I were ridiculously luxurious and happy, sitting there with Mr. Crooked safe behind us in his strengthened cage, as the current and boatmen swung us swiftly along.

MR. CROOKED STRIKES A BLOW FOR FREEDOM

Then the wind rose, rain came sweeping across us, thunder and lightning. A proper

MATCHING THE TIGER'S OWN CRUELTY

The deadfall is the most terrible of all weapons used by the natives against jungle animals. It is made of heavy logs into which are thrust scores of sharp bamboo stakes. When tiger or leopard goes under the deadfall for the bait, a support is released and the heavy logs descend and impale the prowler.

JUNGLE ROYALTY ROARS DISAPPROVAL

Ferocious by nature and possessed of enormous strength and agility, the tiger is universally feared in Siam. Wherever Europeans and their high-powered, accurate rifles have not penetrated, this formidable beast holds its own.

RARE MARKSMANSHIP IS REQUIRED IN SHOOTING BIRDS WITH A CROSSBOW

The Laos conserve their limited supply of powder and shot for use against the striped and spotted prowlers of the night.

tropical storm! We were soon soaked through; but what difference did it make, we thought, for had we not a tiger?

Then, as I tipped my chair back against the cage I heard a sound of ripping and gnawing. I jumped up and swung out on one of the bamboo outriggers which we had lashed to each side of the boat, to steady it against the top-heavy weight of the cage.

No sooner was I on the outrigger than I was yelling for Muang and Collier, and with good reason; for through the beginnings of a goodly hole in the cage I was looking right into the tiger's eyes. Mr. Crooked had, during the noise of the storm, gnawed away a log of the inner cage and seemed in a fair way to get out.

Happily, we had brought aboard plenty of extra logs and small, thick bamboos, and we managed to lash some of these over the hole he had made. Again Mr. Crooked tore them loose, and again we fastened them.

Then, of a sudden, the boat stopped with a jerk and a jar. But for the outriggers, it would have overturned. Everyone, including the boatmen, had been far more interested in what was happening to the tiger than in anything else; so, in the blinding storm, the boat-canoe had run aground on a sand bank near the center of the river.

We were over the side in a minute, and it was not long before we had righted the boat and got her off. But Mr. Crooked had taken advantage of his opportunity and had broken loose more of the logs than before.

ADMINISTERING A DOSE OF CHLOROFORM

Of course, we could have shot the tiger without danger to ourselves at any time, and we were never in real danger of any kind during the entire episode; but we were desperately anxious to bring Mr. Crooked in alive.

It was here that Collier saved the day.

STRIPED FURY PERSONIFIED

Many tigers of northern Siam are man-eaters and the villagers live in constant dread of their depredations. Once having overcome their instinctive fear of man, they become very bold, often going into the villages to seize their prey. The Laos are no match for these beasts, and of all jungle creatures only the elephant, and on occasion the buffalo, can make a stand against them.

He had brought a big bottle of chloroform with him, despite my joking about it. Muang hacked the partitions out of one of the small bamboos, thus making of it a hollow tube. I thrust the bamboo through the bars right into the tiger's mouth, and Collier instantly poured a lot of chloroform down through the improvised tube.

It didn't put the tiger out, but after we had repeated the dose a couple of times it sort of discouraged him. Indeed, it discouraged him long enough to give us time to repair the cage. And when he recovered and tore a log or two loose again, we repeated the performance.

Finally, the chloroform was exhausted; but in using it we had learned a lesson—the tiger would always haul our bamboo sticks into the cage and destroy them completely, with great grunting, chewing, and gnawing, before renewing his attack on the cage.

Finally, the storm ceased, changed to a soft drizzle; then the dawn came slowly up, and with the dawn the tiger gradually stopped its raging, at last becoming quiet.

Muang slept, Collier slept. I was three-quarters asleep on my feet. Then I climbed on top of the cage and lay down there. As I rested I listened to Mr. Crooked's breathing and hoped he was as tired as I.

MR. CROOKED'S WHISKERS BECAME GOOD-LUCK CHARMS

We came around a turn in the river. The coconut trees, bamboo groves, and little thatched houses of Nan came in sight. People rushed down the river bank, shouted at us, and our men proudly shouted back, "Tiger! Tiger!" Softly we ran alongside of the bank. We had brought Mr. Crooked home.

Mr. Crooked, after demise, was discov-

INSTEAD OF A SCARECROW THE LAOS USE A SCARE-SPOOK

The woods and streams of northern Siam are supposed to be peopled with spirits, to many of whom are attributed malicious practices, and some such powerful charm as this must be placed in the rice fields to protect the crop.

ered to be a lady—a medium-sized female. She had once been shot in the leg. A ball from an old native muzzle-loader had struck her; we found the round piece of lead just under the skin. This undoubtedly had caused the injury which made her toe in and gained for her the famous title of "Mr. Crooked." At the last her bones were bought by Chinese to make "powerful medicine," and her whiskers became charms against ill luck, the finest in all Nan.

A DOZEN LEOPARDS CAUGHT

Though tigers for a long while took up much of our attention and thought, we were in reality spending much more time in handling other animals: leopards—cunning, treacherous, slim, daring, brave, and viciously cruel—we caught over a dozen of them. Much bolder than the average tiger, they ventured even into the villages, seeking dogs, chickens, and sometimes children.

Pythons, wildcats, mongooses, bears, anteaters, monitor lizards, sloths, and a variety of other small animals were caught either by our own men or the villagers. Of these little beings of the wild, the ones which interested us most were the gibbons—tree apes of white, black, or brown.

Capable of running upright among the branches or along the ground, balancing with their long arms outspread, performing miracles of acrobatics, they proved of immense interest. We had sometimes with us as many as a dozen of them.

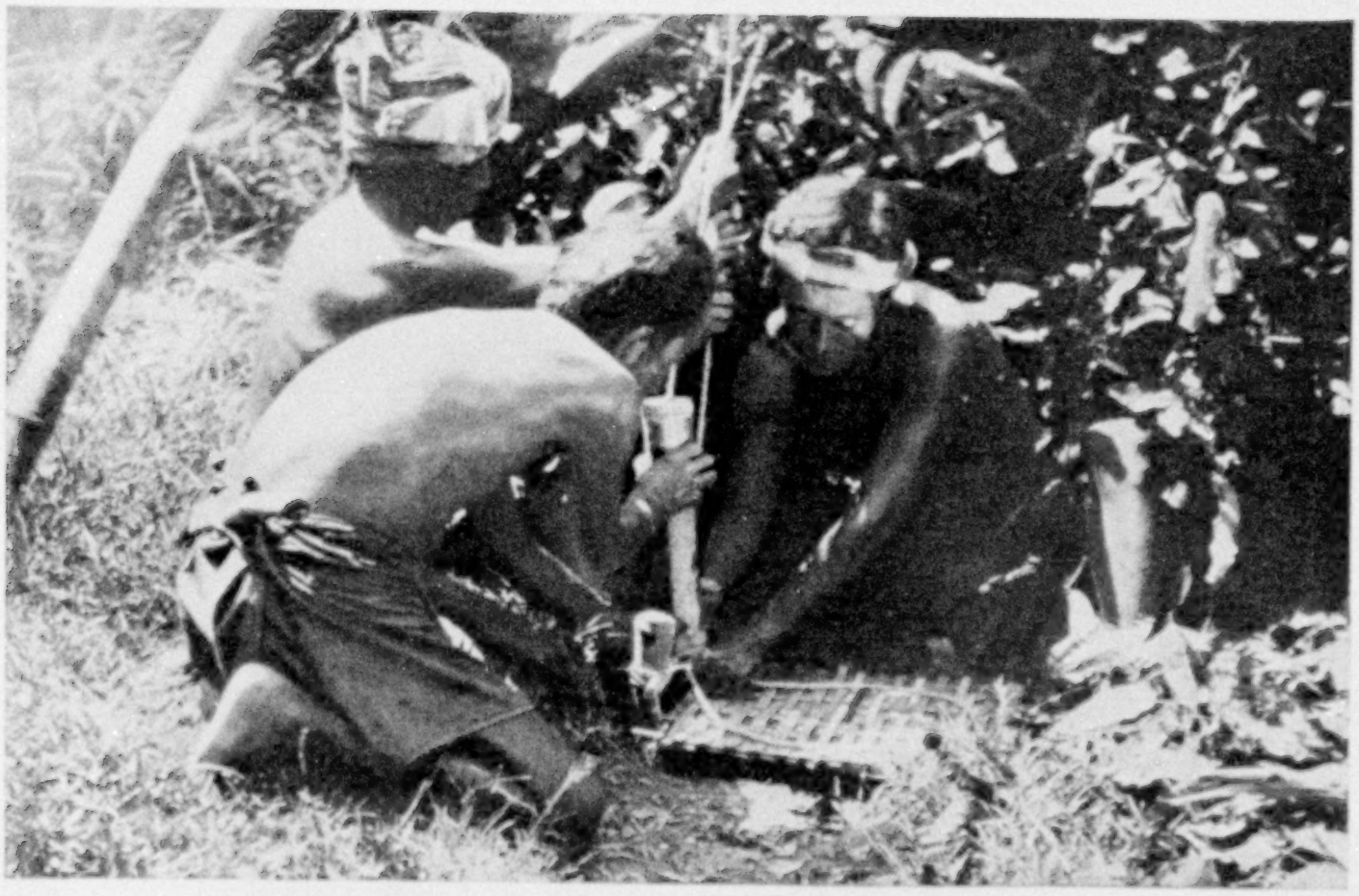
They are the most delightful of pets (see pages 252 and 255). The white and the brown ones usually become very affectionate, though with an antipathy, as a rule, for children; the black ones are more fierce and difficult to tame, yet some of these as well could be made into delightful friends. A half dozen other types of monkeys were also brought to us.

NO MAN MAY KILL AN ELEPHANT IN SIAM

Though our days were passed among these smaller animals, after the tiger our chief interest turned to the elephant—the great beast which has played and still plays such a great part in Siamese life.

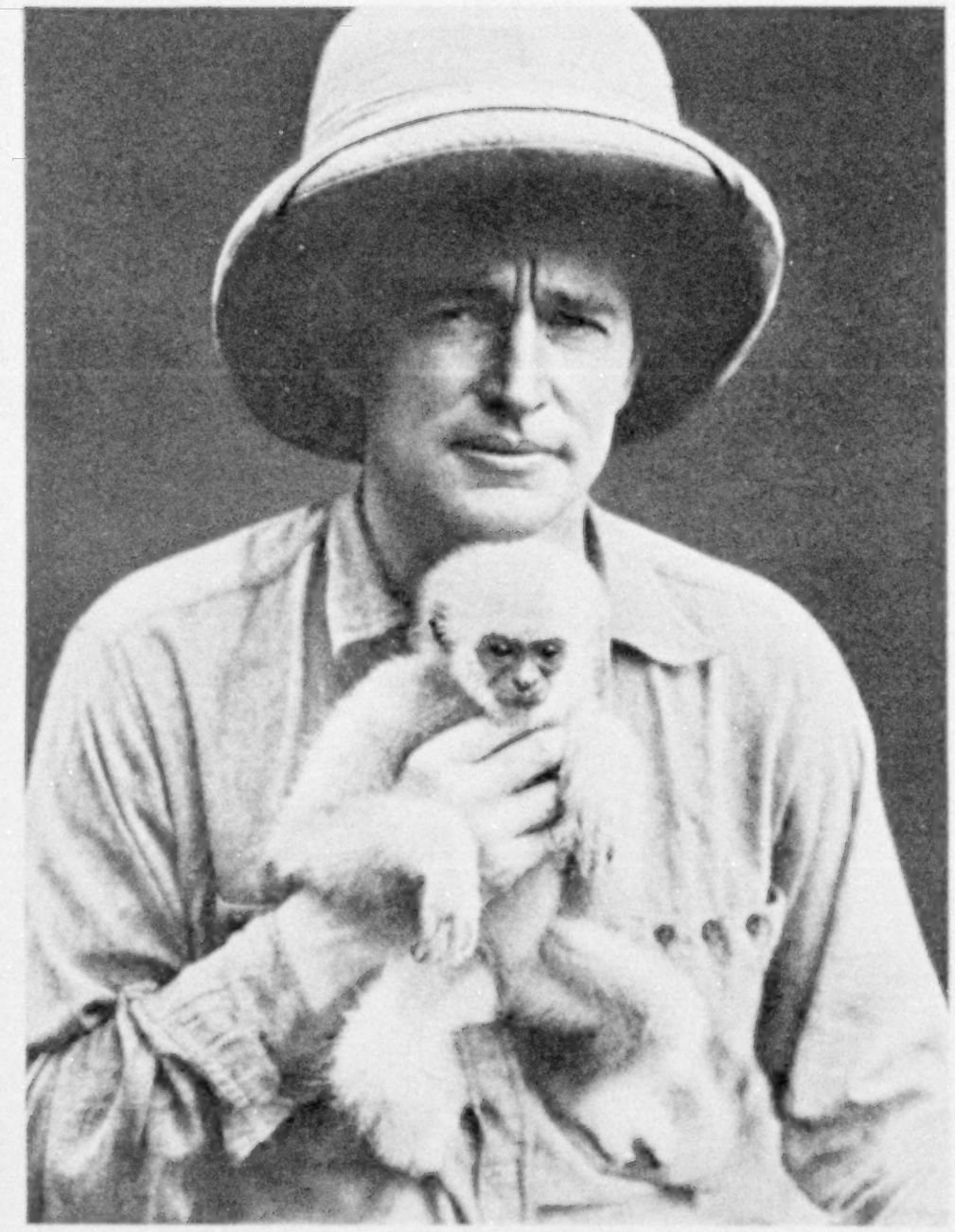
NO ROCKING THE BOAT IN THESE WATERS

Both men and women of northern Siam are deft in the manipulation of such canoes, hollowed from sections of palm logs.



SETTING A SNARE FOR SOME UNWARY BEAST

First a small hole is dug and lightly covered with brush or leaves. A noose, also concealed with leaves, is placed on this covering. When an animal steps on the snare his foot shoots into the hole, thereby releasing the rope, which is whipped upward by a bent bamboo pole. The noose is jerked tight about the quarry's leg. A hollow bamboo is placed around the rope just above the noose to keep the animal from gnawing it in two.



A MONKEY THAT ADOPTED A MAN

This little gibbon became so fond of the author that it wanted to be in constant attendance on him and cried like a baby when left alone. It was perfectly content, however, when allowed to sit on his shoulder.

There are thousands of them in captivity in Siam and more thousands still roam the jungles in wild herds.

In captivity the elephants work in the teak forests, are used as transport, and in many places among the simple villagers are employed for such light tasks as hauling rice.

No man may kill an elephant in Siam. No big-game hunter is permitted to trail him to his death for sport or for the value of his tusks.

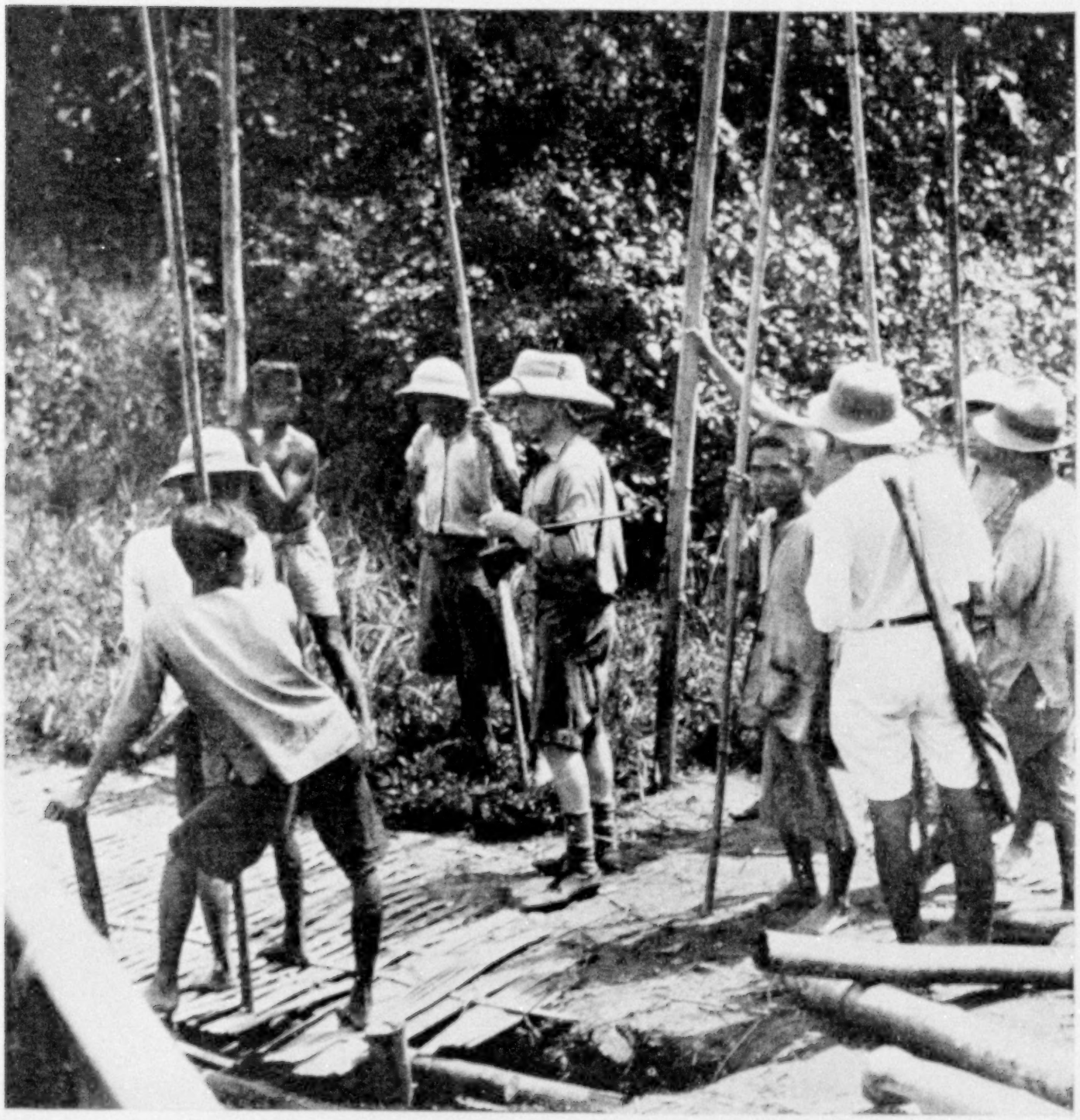
This was a law which pleased us mightily. Actually we spent more time handling elephants than on any other one animal. And the more we had to do with them, the more we liked them. Both Schoedsack and I thought that many writers overestimated the elephant's intelligence, and certainly he almost never has for his mahout the fierce and savage devotion of a dog for its master; but there is something about the big fellows that is fascinating.

"An elephant has two hearts," says the mahout; "one when he has a man on his back, another when he is alone." It is true. A little dog barking around his legs will sometimes give the biggest of elephants almost nervous prostration from fright, when the elephant is without his mahout; the same beast with a man on his back will just as often prove staunch and brave under conditions of real danger.

On the whole, however, an elephant is a mild fellow until aroused or thrown into a panic; then look out, for he is as likely to run through things or crush them underfoot as to run around them—and he frequently does. And when an elephant has periods of "must"—a condition in the adult male indicated in advance by the appearance of a secretion in the tiny holes behind his ears—he may become dangerous and run amuck.

THE ROGUE ELEPHANT IS ONE OF THE MOST DANGEROUS OF BEASTS

Ordinarily, an elephant is not a killer, though I have known excellent work-elephants that have killed more than one mahout; but there is the occasional



BRIDGE BUILDING IS A PART OF JUNGLE WARFARE

In their penetration of the wilds of northern Siam, the author and his associates had frequently to cut their way through. Roads were few and bridges still fewer, for the natives considered a stream sufficiently bridged when a single bamboo log had been thrown across it. This serves fairly well for barefooted balancers, but for men with leather shoes such a crossing too nearly suggests a feat of tightrope walking. Mr. Cooper is the central figure with the short rifle.

"rogue" elephant, one which turns bad because of disease, an injury, fury, or for some other reason.

There is no more dangerous beast in the world, then, than the rogue. They have been known to pull houses down to get at the inmates, and to tear men to pieces and trample them into shapeless masses of pulp.

The rogue elephant may be killed in Siam, but no other. However, in place of destroying elephants the natives are permitted to trap them. All over the dense jungle of the country great herds of elephants still roam, and every year men go out and catch them; not, however, by the crude and cruel pit methods of wild savages, but with infinite patience, craft, and skill.

Each part of Siam has a different method. In the north the natives use as a kraal some natural circular land forma-

CHILDHOOD HATH CHARMS TO SOOTHE THE SAVAGE BEAST

The domesticated Indian buffalo is a powerful and rather surly beast, with which the average man would not take any liberties, but children in the Orient lead them around like sheep. It is no uncommon sight to see the tiny son or daughter of a farmer riding on the neck of one of these huge animals, as it slowly makes its way to the rice paddies. In its wild state, this buffalo is a truly ferocious creature and sometimes proves more than a match for the tiger.

tion with very steep sides. The weak places they block with a line of pointed poles slanting inward at a 45-degree angle. Behind these poles are stationed men with torches and guns. A gate is built at the narrow entrance, and through this they attempt to drive the wild herd.

ELEPHANTS ARE LASSOED IN CENTRAL SIAM

In central Siam they have a very sporting method. They run wild elephants down with tame elephants and lasso them.

This method, which I did not see, has been described to me as follows:

Two men are mounted on a tame elephant. One sits forward on the elephant's neck and carries a sort of combined lasso and steel circlet affair for lassoing the quarry's leg. The second man sits near the stern end of the elephant, facing backward. He is armed with a sharp iron goad (see page 259).

A number of these teams of elephant catchers approach a wild herd as quietly as possible, the men lying flat on the elephants' backs, so as to attract as little attention as possible.

When the wild herd takes alarm, the tame elephants start in pursuit. Each man who sits facing the rear pounds his tame elephant's hindquarters as hard as he can with the iron goad, to force it to as high a speed as possible. When the mahout is close enough he casts his lasso.

A third method is used in the south,

where a great stockade is built in the forest, somewhat oval in formation, with outspread wings and a drop-gate. Into this the natives try to drive a wild herd.

KING'S BROTHER ARRANGES FOR ELEPHANT HUNT

Schoedsack and I wanted to see an elephant drive. The American chargé d'affaires in Bangkok kindly gave us a letter of introduction to Prince Yugala of Lopburi, a brother of the King of Siam. Prince Yugala was then Viceroy of south Siam. I went down by railroad to his capital at Singora and I rode from the resthouse to his residence, a neat bungalowlike building set in a garden of tropical trees.

The prince sat on a sofa in a luxuriously fitted drawingroom, a mixture of Eastern and Western furnishings. He spoke English; for he, like most Siamese royalty, had been educated in English schools and universities.

"It will be very easy to do as you ask," he said. "I know an old man who catches many elephants. He will show you how."

As he spoke, a servant came to the door, dropped to his knees, and came waddling across the room, still on his knees, bearing a tray covered with teacups, glasses, and boxes of cigarettes. We drank, smoked, parted.

Prince Yugala kept his promise, and it was through his courtesy that, many months later, when we came back down from Nan, I found myself en route for the place of the drive. Schoedsack was to join me in a few days.

SIAMESE PALS

Gibbons are hard to capture, but are easily tamed. They walk upright, are very affectionate, and make excellent pets. Their long arms enable them to swing through the trees easily and gracefully and with considerable speed (see, also, text, page 250).

Accompanied by a Siamese gendarme captain who spoke English, I got off the train in the native village of Chawang. It was the usual cluster of Chinese trading stores and bamboo native houses. We were led around the precincts, as no strangers could enter because of a smallpox epidemic there. We walked down to the river, where four boats, sent by the governor at the Prince's order, were awaiting us. Each was covered with rugs; in each boat were four boatmen.

For hours the current bore us along a dark stream, with the jungle black and thick on either side. At last, in the late afternoon, we ran alongside the bank at

TRIUMPH OF MIND OVER MATTER

The mighty beast, having submitted to man's superior intelligence, serves him well. Often a bond of real affection and loyalty is established between them, and the elephant and his master come to understand each other perfectly. Much of the heavy labor performed in the Occident by machinery is accomplished in the Orient by elephants (see text, page 252).

A BABY WITH A MIND OF HIS OWN

This two-months-old elephant objects strenuously to confinement. His owner is attempting to improve his disposition with sugar cane, but is careful to keep out of reach of his trunk; for, young as the captive is, he can deal a surprisingly hard blow.

a little village. Nine elephants were waiting for us, and there was much bowing of the local village chiefs. Our elephants knelt, we climbed aboard to little cramped seats, and were off.

Soon we plunged into the jungle. Darkness came on. Torches were lighted. My elephant led. A torchbearer walked just before. It seemed to me as if I were floating in a sea of blackness, while far below, at the bottom of this dark ocean, shone a circle of red-yellow lights.

Branches from time to time brushed our faces; but my elephant was beautifully trained and made its way forward slowly and cautiously, avoiding the overhanging limbs at the slightest touch from the mahout.

Suddenly more torches ahead and the noise of voices; then the sight of some long, vague shape, and we had stopped before a low bamboo house.

SIGNS WHICH LEAD TRACKERS TO AN ELEPHANT HERD

Soon an old man came to see me. He was the famous elephant catcher, the chief of this kraal, a rich man, for he was said to own 24 elephants.

He sat himself cross-legged at my feet. His face was wrinkled, the skin of his brown, bare upper body showed the withering of age; yet he moved with the easy grace of a young man and he had brought his women along with him. Their chatter sounded back and forth from the little bamboo house which he had built adjoining the one which he had constructed for us.

"We will catch the elephants for you to see," he said, my captain interpreting for me. "For a week now, my men have slowly driven a herd toward the kraal. It is not a great herd, but my men have counted 18 elephants. My other men are now trying to locate a greater.

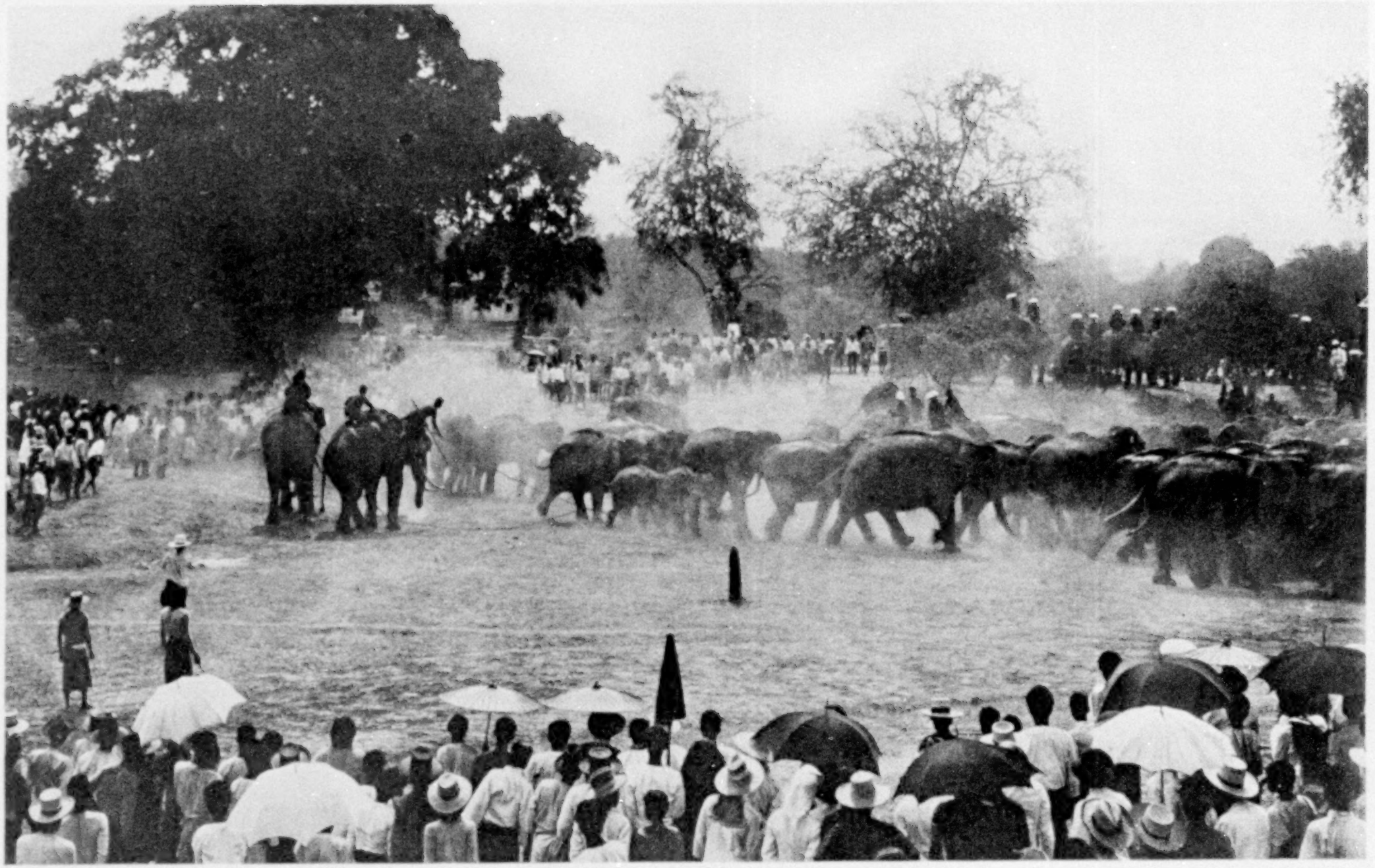
"It is not always easy to locate a big herd, for the elephants do not always go the same way. It depends upon the water and feed. Slowly my men must follow. They look at the grass. If it is withered, they know the elephants have passed long before; if only just trodden down, my men know they are close on the trail.

Photograph by R. Leuz

DRIVING WILD ELEPHANTS ACROSS THE MENAM RIVER TO MAKE A "SIAMESE HOLIDAY"

A royal elephant hunt, or "round-up," is the occasion for elaborate festivities in Siam. For weeks beaters scour the jungle and assemble a great herd of wild elephants, sometimes numbering as many as 300. These are carefully guided toward the scene of the round-up. In this particular hunt they have been driven into a river. Boats of all sizes and descriptions hedge them in, keeping at a safe distance. Hunters mounted on tame elephants urge the wild animals across the stream. The shouts of the multitude set the great beasts' nerves on edge, and they trumpet angrily and spout water over each other (see, also, pages 259 and 260).

XUM



Photograph from H. T. Cowling

THE WILD HERD IS BEING DRIVEN INTO THE KRAAL

The herd has been brought safely across the river (see page 258) and is now milling nervously about before a massive inclosure of teak logs with a V-shaped entrance. Jostled by the tame elephants and pricked by the spears of the herders, the great pachyderms become thoroughly frightened and make a terrific din, which continues unabated until, at a word from the royal party, they are driven through the narrow opening into the kraal. There they remain overnight. On the second day expert catchers mounted on tame tuskers enter the kraal and select from the herd the young animals desired. Their capture is accomplished by passing a noose of strong rattan rope around one of the hind feet. The end of this rope is quickly fastened to the palisade and the maddened animal left to struggle and trumpet until exhausted.

Photograph from Merian C. Cooper

WITH UMBRELLA AND FETISH, A NATIVE ENTERTAINER PLAYS MATADOR TO THE HERD

After a number of desirable young animals have been lassoed and made fast, the remainder of the enraged herd is forced out again into the open plain, and on the third day provides sport for the crowd, which is protected only by a cordon of tame elephants. A young man (central foreground) now strolls out on the field, dressed in bright colors and carrying an umbrella, which he flaunts at the frightened animals. Suddenly one of them dashes toward him. He stands quite motionless until it is almost upon him, and then, with a final flirt of his umbrella, darts hastily behind the tame tuskers, who receive the charge of the baffled beast and drive it back to the herd. A false step may bring a swift and terrible death to the unfortunate elephant baiter.

They look, too, at the elephants' dung. In two days, maybe, in the sun, this dung will dry completely, and so they can tell how long since elephants have passed. They look, too, for the traces of moles and insects across the elephants' path.

"Oh, there are many things the trackers must watch, long before they ever see the elephants. And they must remember, too, that where there is good grazing and water the elephants travel slowly; if no good grass, the elephants may in one day go ten, twenty, thirty miles."

THE FEMALE RULES THE HERD

"Can you always catch a herd?"

"No, Ni. Sometimes the elephant herd has a clever queen; for always the female rules the herd. It is she who says how fast they travel or how slow. We think she is the great-grandmother of the herd, and that each elephant herd is mostly made up of the growth of one big family."

I thought I understood what he meant. So, in the same sense, is a desert tribe a large family and is called by a family name, though, of course, new blood is often brought into the family group.

"The elephants often fight, Ni, herd against herd. I know many of your people say this is a lie; but it is true. I myself have often seen the marks of battle; they fight for the good feeding places."

At dawn the next morning I went out. I saw we were in the midst of a deep and lovely forest. Giant trees towered straight up, seeking the sun; and fifty yards away was an oval-shaped inclosure, built of big logs of jungle wood, very heavy and strong, thrust deep into the ground. These were bound together by cross-logs and tied again and again with rattan. Other logs were thrust on the outer side at a 45-degree angle as braces.

At the entrance to this kraal was a huge gate, swung open, and supported for its swing by a thick rattan rope tied near the top of a tall tree. Another rope held the gate in position. At the cutting of this second rope the gate would swing shut on the pivot of the upper rope, swinging from the inside of the kraal outward, so that the trapped elephants, pressing from the inside outward, would only close the gate more tightly.

Outward from the two gateposts palisades extended in a great V-shape, making the gate like the mouth of a funnel, the palisades like the funnel itself, and the kraal the bottle into which the elephants were to be poured.

I spent the morning examining and making notes on the construction and size of the kraal. In the afternoon a messenger came in, saying the elephant herd was not far away and was slowly being driven closer in. I went out to try to see them, though it was already late.

Now the sun disappeared. The forest ceased to be a dark wall spotted with patches of vivid sunlight. It turned into a soft green, each tree trunk, each bush, outlined in the dying gray light. A gibbon gave its tremendous whoop far, far away; birds called on every side louder and louder. Then I heard the noise of the moving of a great body. I stepped behind a tree and waited.

JUNGLE GIRL GUIDES ELEPHANT THROUGH THE NIGHT

Out into the trail stepped an elephant, but not a wild one, for astride its great gray neck, swinging gracefully to each move of its gigantic roll, sat a jungle girl. She was its mahout. Her skin was a fair olive, her eyes black and large, and straight black hair was drawn back from an unwrinkled brow. She smiled, showing white, straight teeth.

The great elephant waddled on, guided by the bare toes of its little mistress, just reaching behind each flapping ear.

And I was alone in the jungle once more.

Next day more elephants arrived. The governor had sent me the Prince's best for our use—six beauties, all trained in the way of easy marching, with short steps, which lessen the jolting, ungainly natural swing of the average beast. These I sent down to the river to meet Schoedsack, who arrived at night.

The next evening the old elephant master stopped at the door of our bamboo house. His *para* (skirt) was kilted up above his knees, an old muzzle-loader was swung over his shoulder, a rosin torch in a bamboo stem swung at his waist.

"O, Ni, no lights, and all quiet to-night, please, for to-night we drive the elephants."

I called in our boys.

"No lights, no fires, no talking."

BUDDHA CONTEMPLATES A CITY BEREFT OF ITS GLORY

Ayuthia, capital of Siam for nearly four centuries, was destroyed by the Burmese in 1765 and has never regained its ancient prestige. It is situated on an island in the Me Nam River about 40 miles from Bangkok, and most of the ruins are now overgrown by jungle.

A FAVORITE OF THE DANCE

The professional dancer in Siam undergoes arduous training in the difficult undulations and postures which her art requires. Gliding, swaying, and writhing motions take the place of the skipping and pirouetting of the Western dance. The performer wears a gorgeous costume and plasters her face so thickly with white powder that it appears to be incased in a mask.

Tahn, our own chief trapper, his aboriginal, stolid face keen now with the atavistic desire of the hunt, came with us to where a sort of covered pavilion had been built high above the kraal. We climbed up and lay there silently.

A line of men trooped quietly by. They disappeared in the distance. All was quiet, still, very still. We waited an interminable hour; then, from far away, came the noise of beaters rapping on trees, an occasional glint of torchlight.

We knew what was happening. The plan, as usual, was for the beaters to drive the elephants steadily and slowly before them until within the outer edges of the funnel palisades; then, with a great shouting, firing of guns, firecrackers, and blazing of torches, they would try to drive the elephants in a mad rush right through the gate.

On the ground, inside the kraal, dry bamboos were scattered; so that when the elephants trod on them they would be

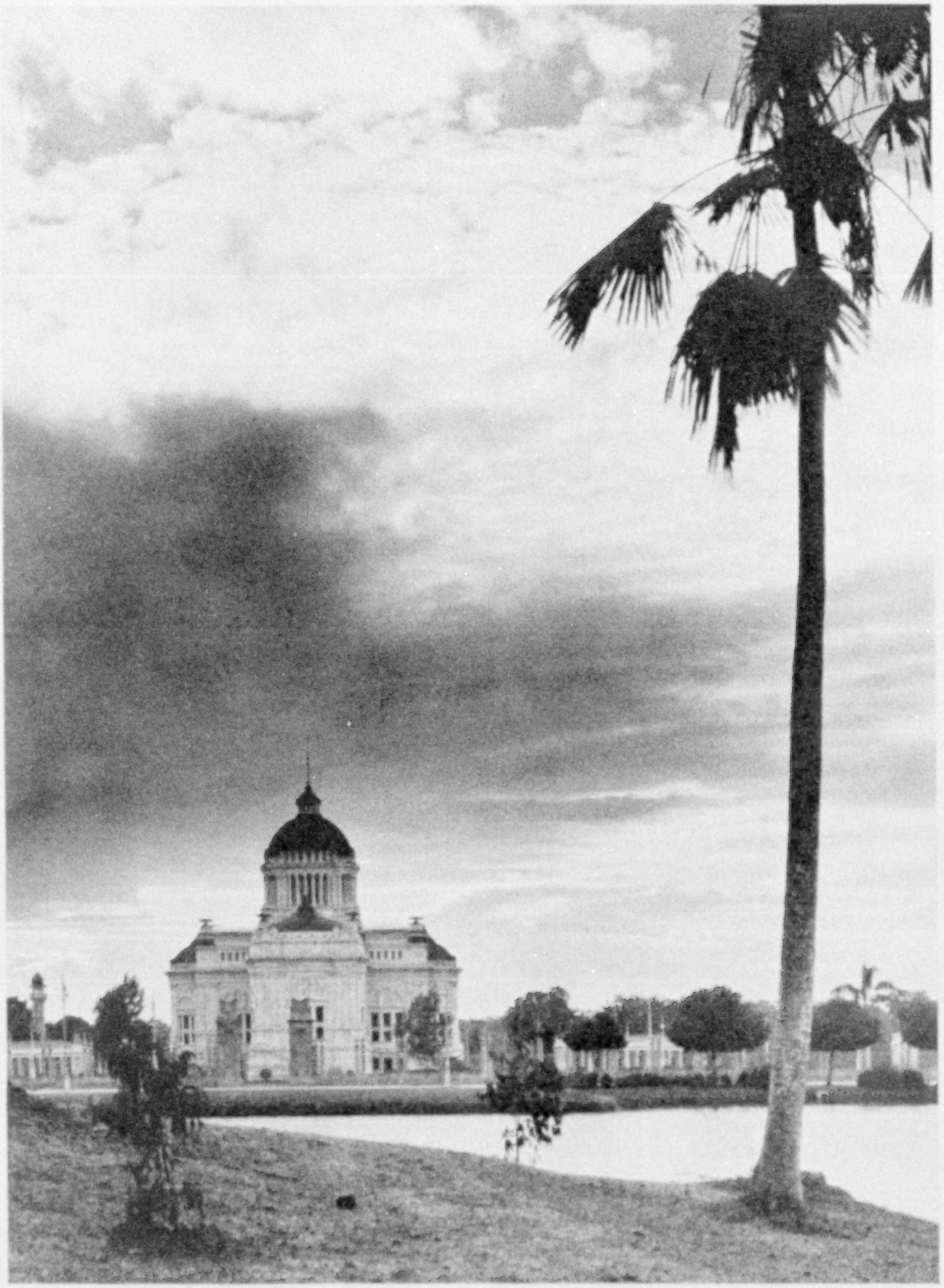
LIQUID MAIN STREET IN A SIAMESE TOWN

While the poorer houses are built of thatch and bamboo, those of more prosperous classes are made largely of teakwood and roofed with tiles. Frequently a village will be built up along both sides of a stream or canal, the waterway furnishing the principal traffic artery of the community.

Photograph by W. Robert Moore

A SIDEWALK THEATRICAL PERFORMANCE

Small tent theaters operate in side streets of the capital, the players putting on their make-up before the audience. Siamese drama is so hedged about by tradition and convention as to be almost incomprehensible to a stranger. The stage consists of an oblong space with the audience on three sides and the fourth side reserved for the orchestra and players. Dancing is usually a principal feature of the entertainment.



Photograph by Herbert

THE THRONE HALL AT BANGKOK IS OF EUROPEAN DESIGN

This handsome building is one of the finest examples of Occidental architecture in the Orient and is indicative of the impress that contact with the Western World has made upon Siamese royalty. Practically all of the princes royal are educated in Europe, the present king being an Oxford man (see text, page 268).

crushed, and the crackling noise would be a signal for the man at the rope to cut it, letting the gate close.

We waited long that night; finally, the old elephant catcher himself came back, saying that there had not been enough firecrackers and torches to stampede the elephants, but that his men had them tightly closed in with a circle of fires, from which they could not escape, and tomorrow night—then!

A WITCH DOCTOR WRECKS THE DRIVE

The next night came. Again we took our places; again the breathless stillness. And now, nearer and nearer came the noise of the beaters. A great angry trumpeting, a shrill squeal, the sound of great bodies crashing through brush. The elephants were near, very near.

"S-h-h!" we whispered to our excited boys. We scarcely dared stir for fear the elephants would locate the kraal in front of them by some sound from us.

At that moment, to our horror and astonishment, a light appeared at the door of the platform just across the kraal from us, a platform raised high above the kraal and close to its wall, as was ours.

"What in blazes could that be?"

We cursed under our breaths.

More noise from the elephants coming toward the kraal. Singing, and the light across the way began to dance about!

Louder and louder the man carrying this light sang. Surely he would scare away the herd. Now, pandemonium from the elephants. Shouts, gunshots, yells from the beaters. Then a great crashing—and the noise of the elephants died away in the distance. . . .

Later, once more the old elephant master returned, with the sad news this time that the herd had broken through the line, nearly killed one man, and was in full flight, miles away by now.

The drive had failed.

We were filled with wrath at the singer and light-swinger. He had scared away the elephants, we declared loudly. But this, we were told, was impossible. The singer had been the witch doctor, praying and chanting to overcome the evil spirits of the kraal, so that the elephants would surely enter!!!

And the witch doctor blamed the failure on us. He said a camera platform we had built had made the spirits angry, and that they had driven the elephants away.

For eight months after this Schoedsack and I continued our work with elephants, other wild beasts, and natives; and it was due only to the kind aid given us by Prince Yugala, Prince Damrong, and others of the Siamese royal family that we were able to get the results we did. They smoothed our way everywhere, for the authority of the royal family is complete.

Indeed, Siam is one of the only three absolute monarchies left—Afghanistan, Ethiopia, and Siam. Theoretically and practically, there is no limit to the power of the King of Siam in his own territories. He is the supreme law; in fact, he can make and unmake laws at will. No parliament hampers his movements, and he chooses his own advisers as he sees fit.

AN AUDIENCE WITH THE KING IS ARRANGED

Such a ruler in this modern world is one of the most interesting and romantic of men, and we were glad to have the chance of a private interview.

Schoedsack and I were on our way out of the country. We came down out of the northern jungles thin, brown, ragged. I asked for an interview with the King, little thinking that he would be able to arrange it, for his time is filled with official duties and we had but three days in Bangkok before going south. But at noon, the day before our departure, the American Minister sent word to the hotel that the King would receive us at 2 o'clock that afternoon—uniform, full evening dress.

We had no evening dress. As usual, we were traveling light, and moths had played hide and seek through the trousers of the dinner clothes I had left in Bangkok a year or more before.

There was no hope for Schoedsack; his six feet five could not be readily clothed in Bangkok; but the American colony came to my aid in a hurry, and in an hour, arrayed in the coat of the Minister, the trousers of the Manager of the International Engineers, and with the Consul's high silk hat perched precariously on top of my head, I was speeding along in an automobile to the palace.

Solomon in all his glory felt no grander than I, thus transformed into such a thing

of misfit grandeur and beauty, after a year in camp rags.

The palace of the King lay some distance back of the throne hall (see page 266). At the gate stood a guard carrying old-fashioned halberds, and as I jumped out of the automobile two officers in spotless white uniforms greeted me in perfect English. We walked up a drive together and entered the palace.

Rich furnishings filled a large room hung with European paintings.

One of the court chamberlains entered—a lean, dignified man of forty. He, too, spoke English. Many of the Siamese nobility—in fact, most of the higher nobility—are educated in England or France.

"Where is Mr. Schoedsack?"

I made apologies for Schoedsack. Consternation. The reception called for two of us, and here was only one.

SIAM'S KING IS AN OXFORD MAN

A servant brought in tea and cigarettes. He dropped to his knees as he served us. The officers and the chamberlain spoke of London and Paris, but without sighs of regret, for nearly all Siamese are happy in their own country and love its ways and life—the winding, green-banked rivers, the coconut trees, the wayside temples, and the long sunshine-filled days.

Fifteen minutes. Another chamberlain entered. We walked through another suite of rooms, likewise richly furnished; then up a flight of stairs. Now the chamberlain swung open a door, drew aside, after bowing deeply to some one inside, and motioned me to enter.

In the center of a high-ceilinged, very large room stood a slight, upright figure in the uniform of an officer. There was little gold lace or other ornamentation about his dress and a single decoration was pinned on his coat.

I recognized the King. He advanced, stretched out his hand, took mine; then motioned me to a seat in a high-backed chair facing his, meanwhile saying a few conventional words of greeting.

As we sat facing each other, I looked at him curiously and carefully—this man, so great among his own people, one of the last of kings.

There was no pretense or pompousness in his manners. His eye was clear, and only occasionally did he gesticulate with firm and even movement of the hands, as he spoke. His English was perfect; and well it might be, seeing that he had been educated at Eton, Oxford, and Sandhurst. He is now 34 years old, and a great portion of his life has been spent in England, though he completed his military education at St. Cyr, in France, before returning to Siam.

"I know your country of America," he said. "I have traveled there. You believe in democracy, and, strange as it may sound, coming from me, I, too, believe in democracy and in representative government. But the time is not yet, in this country, for such a government. It is necessary to raise our people to a higher stage of civilization first.

"Education and schools are the way. But schools cost money, and we are a small nation and not rich. As we increase our cultivated areas, we shall have more money."

We talked along thus for a half or three-quarters of an hour.

Abruptly the King rose.

"I must ask you to excuse me. I have to attend a ceremony," he said.

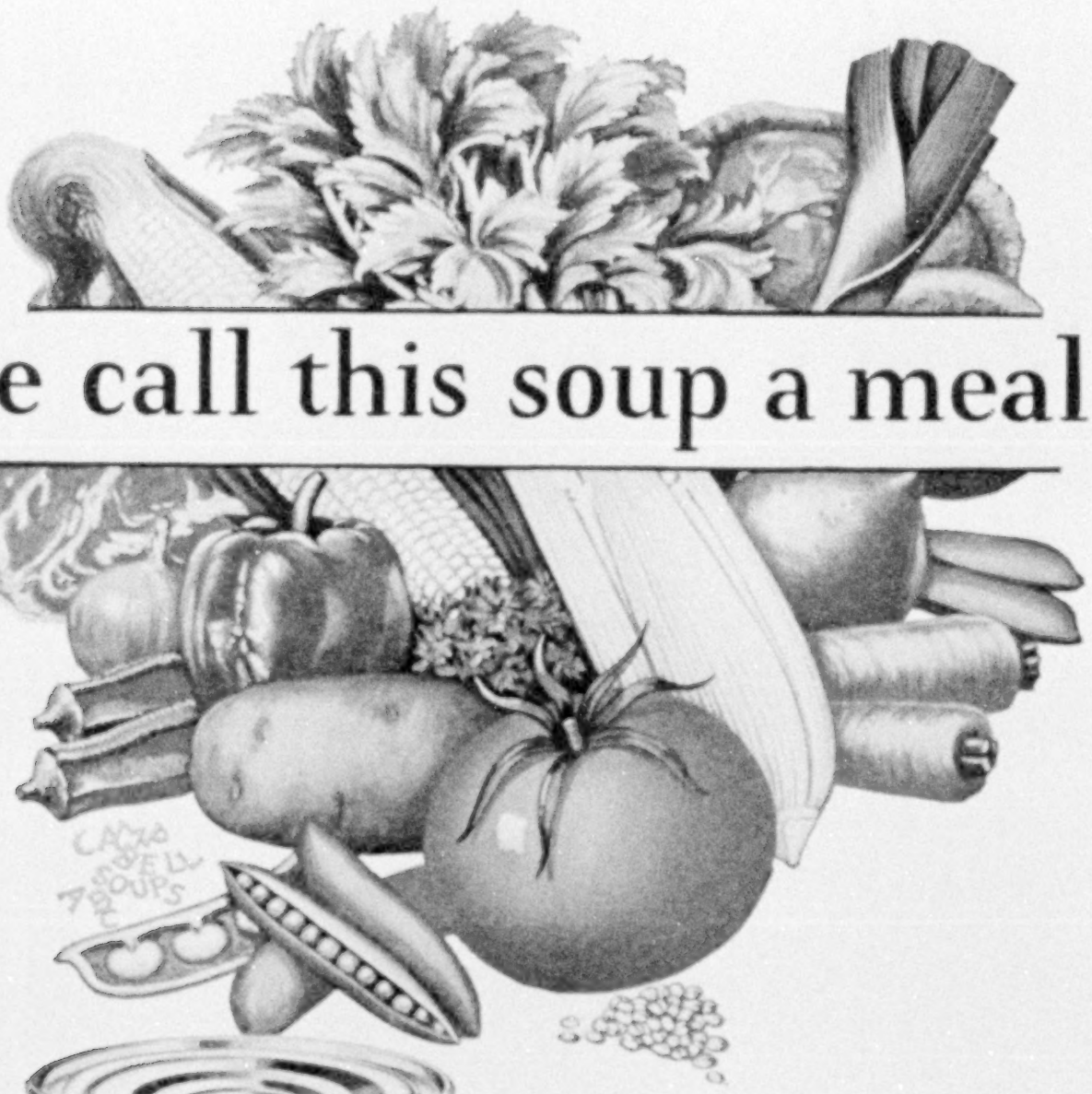
We shook hands and parted.

At the door of the palace, as I went out, I saw standing a Rolls-Royce ready for the King. A line of other motor cars waited behind. Five minutes after my departure the King was on his way to a temple to take his part as the head of the religion of his country, in some age-old function.

I rode home thoughtfully. I remembered the former King of Siam, this man's elder brother. When Schoedsack and I had first come there, over a year before, I had seen him play in private theatricals, a man who devoted nearly all of his time and much of the money of the kingdom to his huge private theatrical troups, so all said in Bangkok. And now I thought of this young King, entering upon his new duties filled with the belief that a king should be "the father of his people, not their oppressor." And he was in earnest, too. No doubt of that.

So I was thinking when the Consul's silk hat nearly blew off into the street, as my car swung sharply around a turn, and I was back at the hotel ready to go south through the Malay Peninsula on our way home once again.

People call this soup a meal



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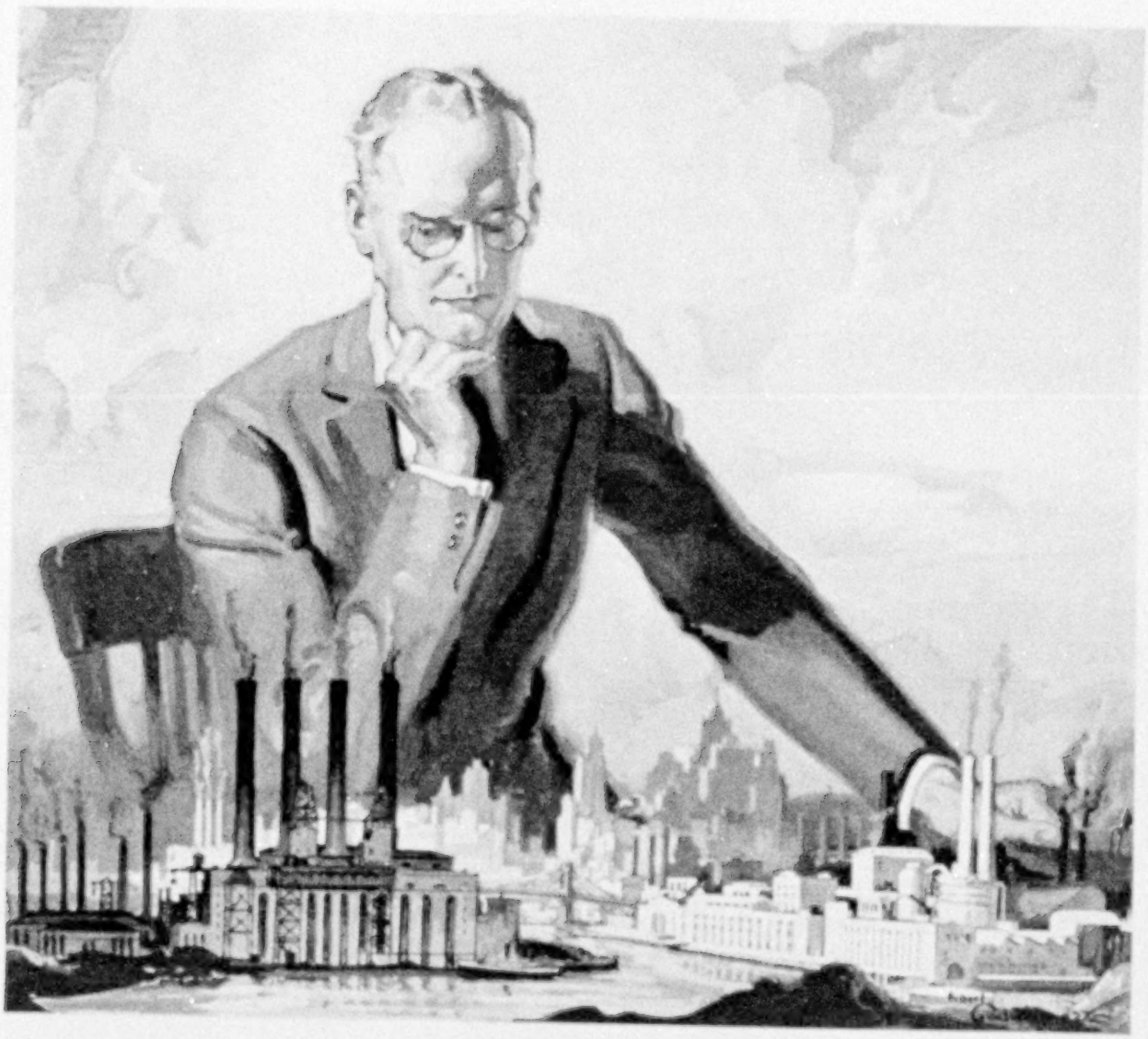

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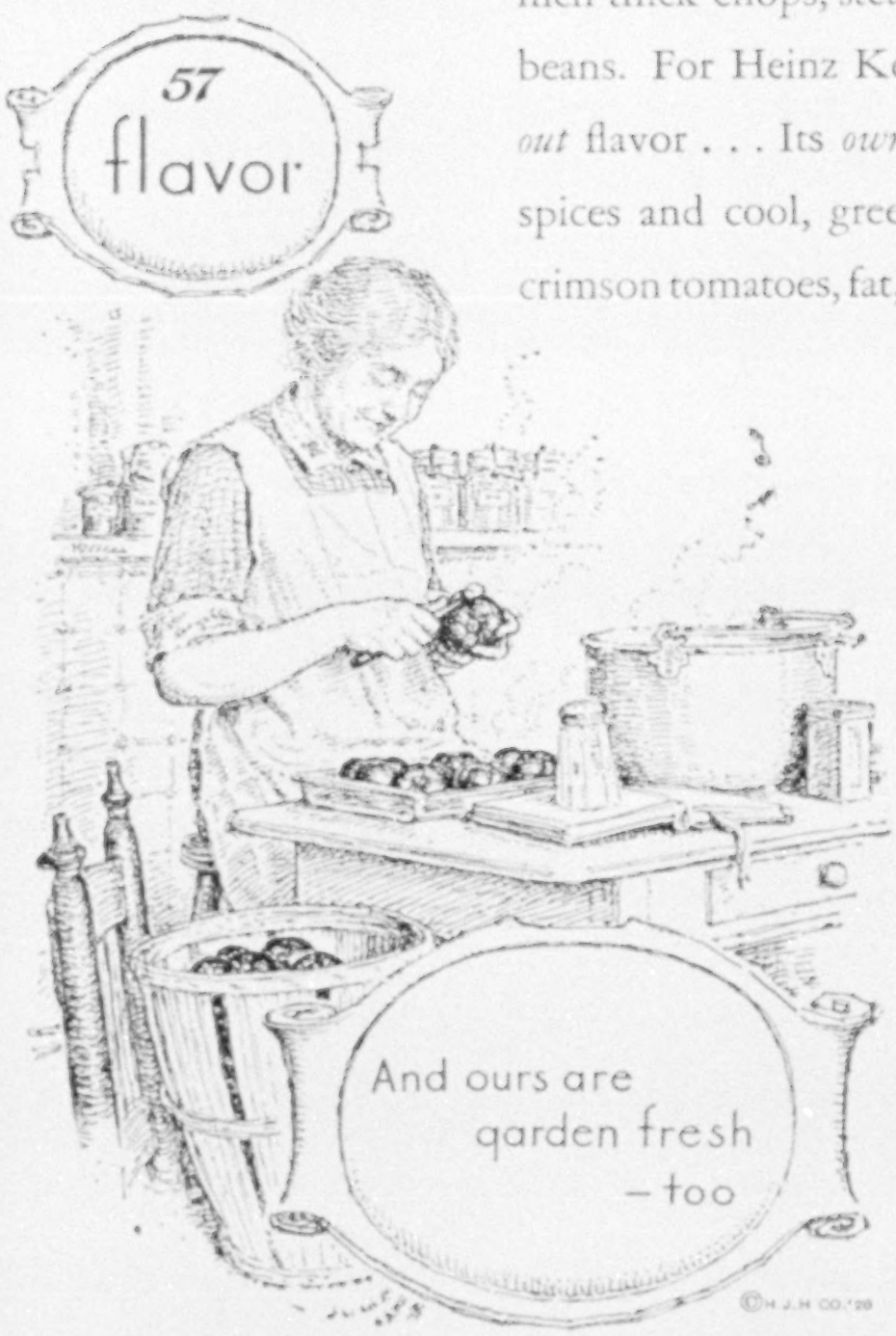

Perhaps you have a garden. And know the superb flavor of ripe tomatoes eaten fresh off the vines. . . So you can imagine why we go to so much trouble to catch that exact flavor for Heinz Ketchup. For our kitchens are located where we can bottle up this wonderful freshness as soon as the tomatoes are picked.

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Then we go ourselves to the Orient for the spices and blend them to give exactly the right zip. The vinegar is our own mellowed, aged-in-wood kind. And then of course there is the fifty-nine years' experience in making things taste good. It is this ingredient that has made the name Heinz mean Flavor . . .

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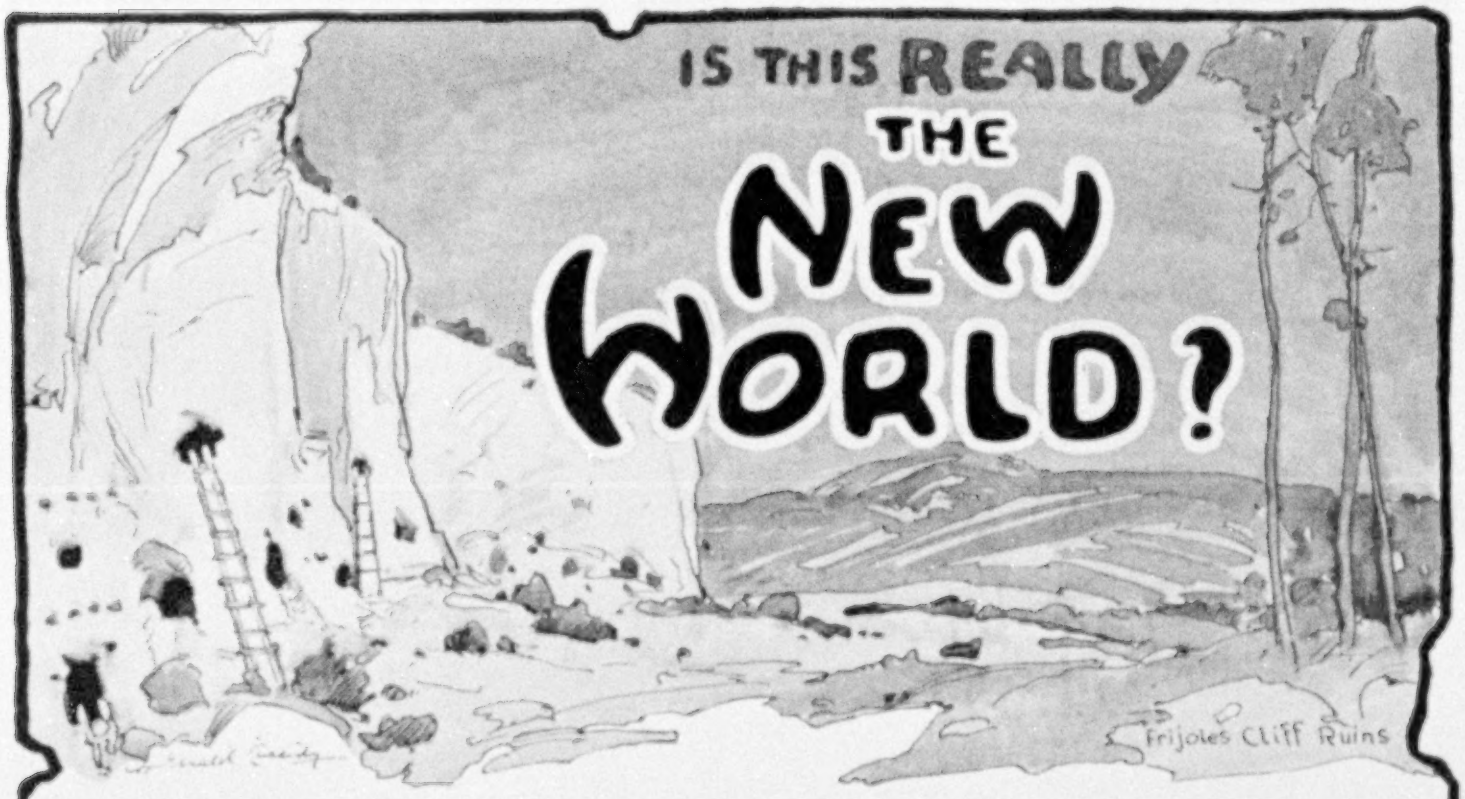

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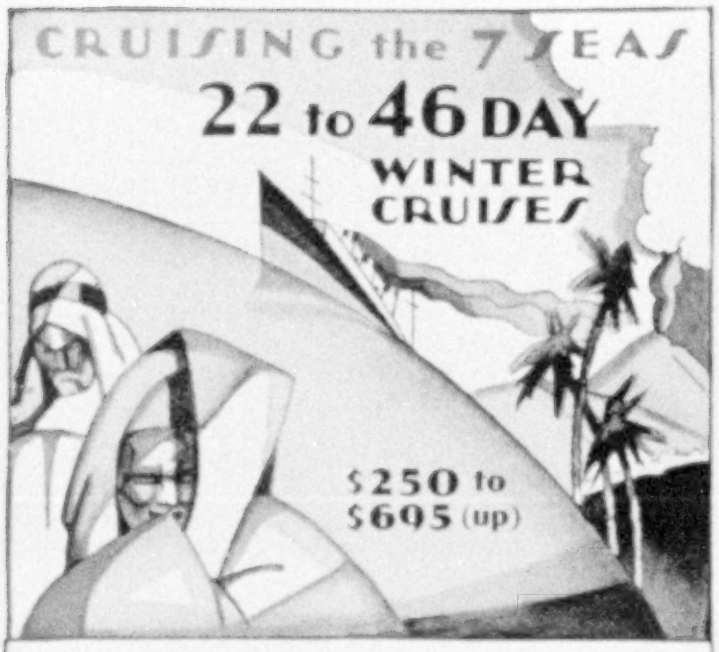

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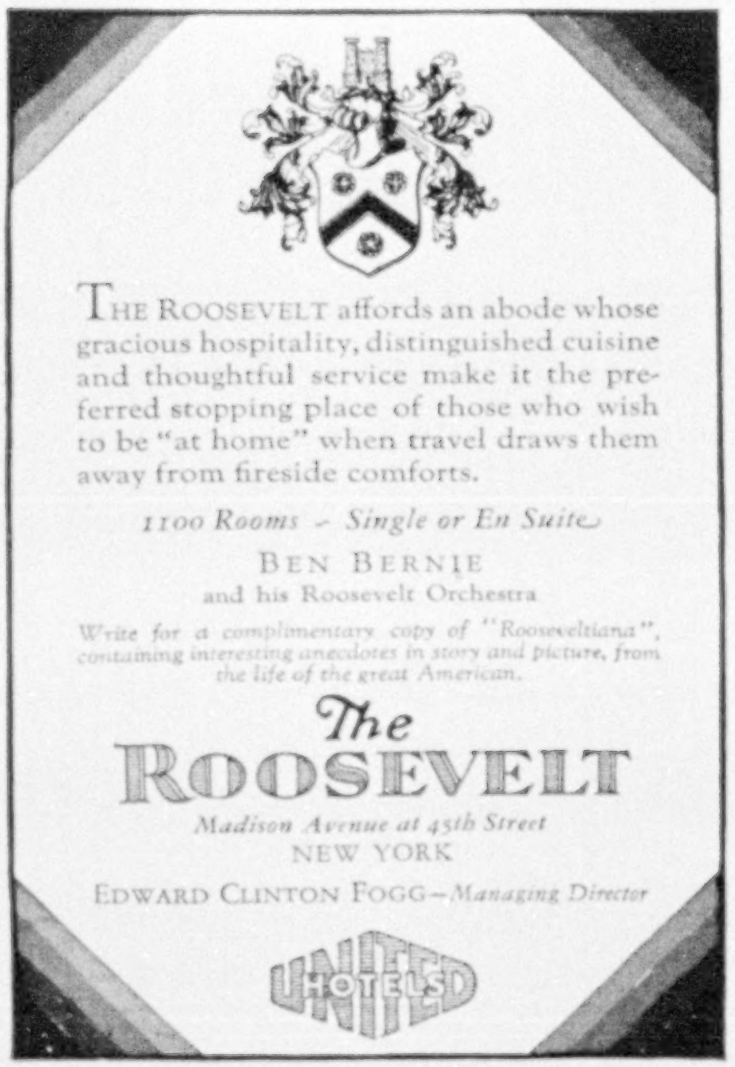

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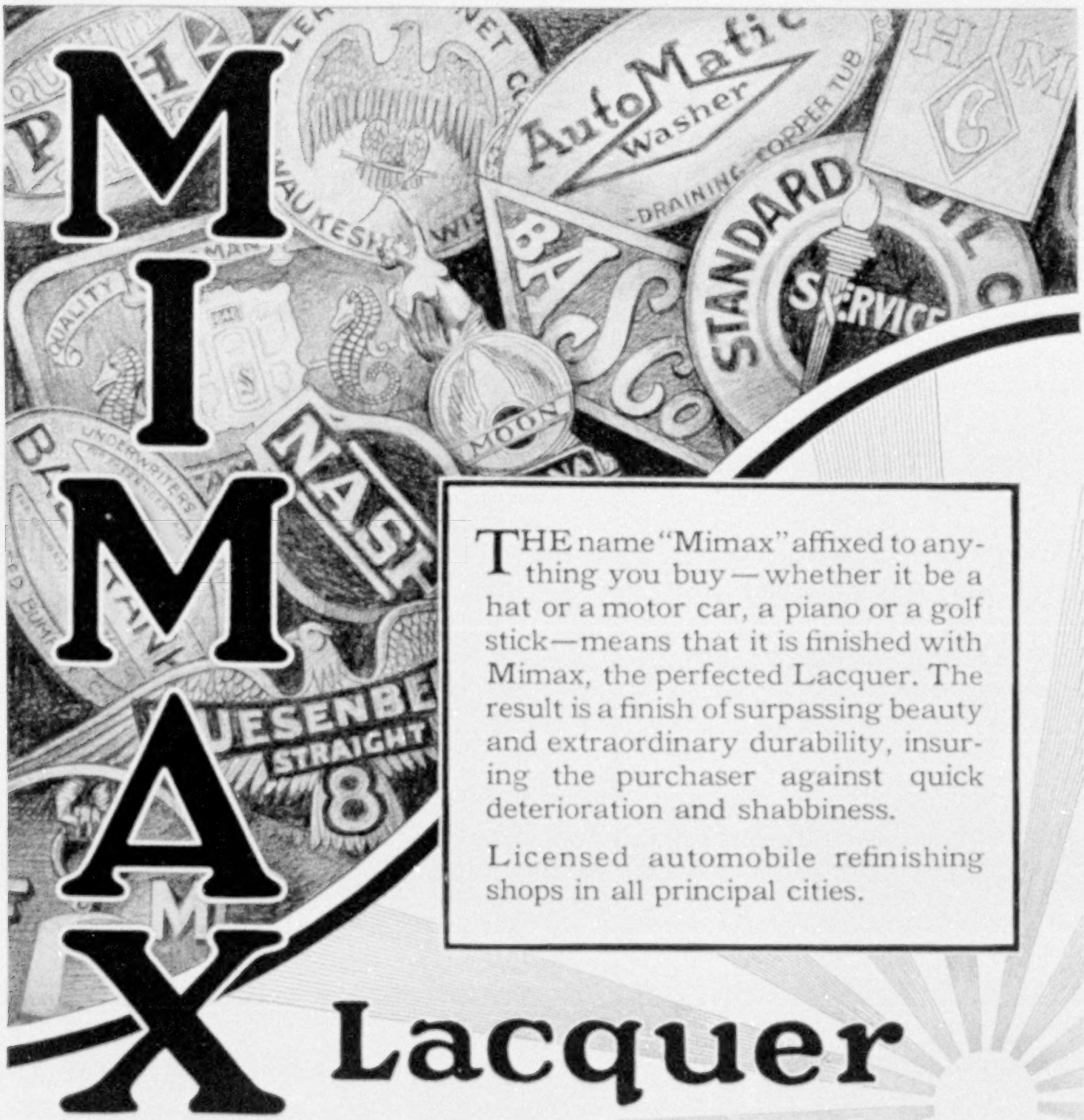

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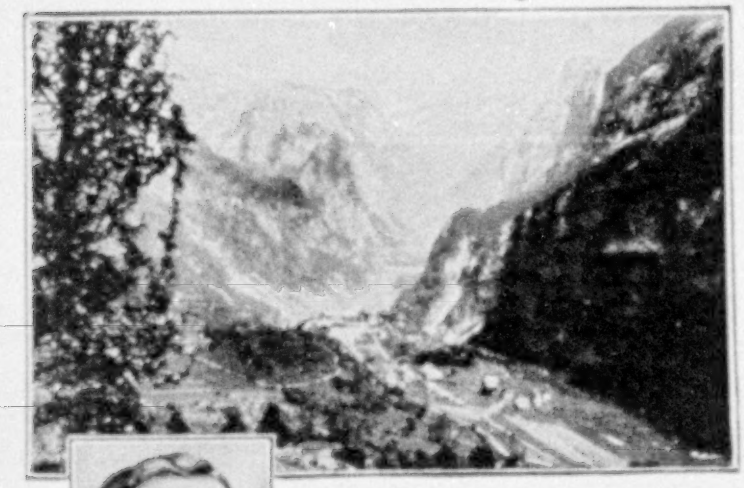

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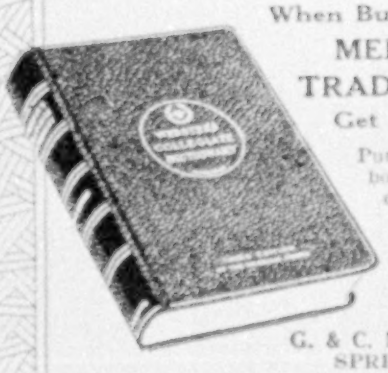

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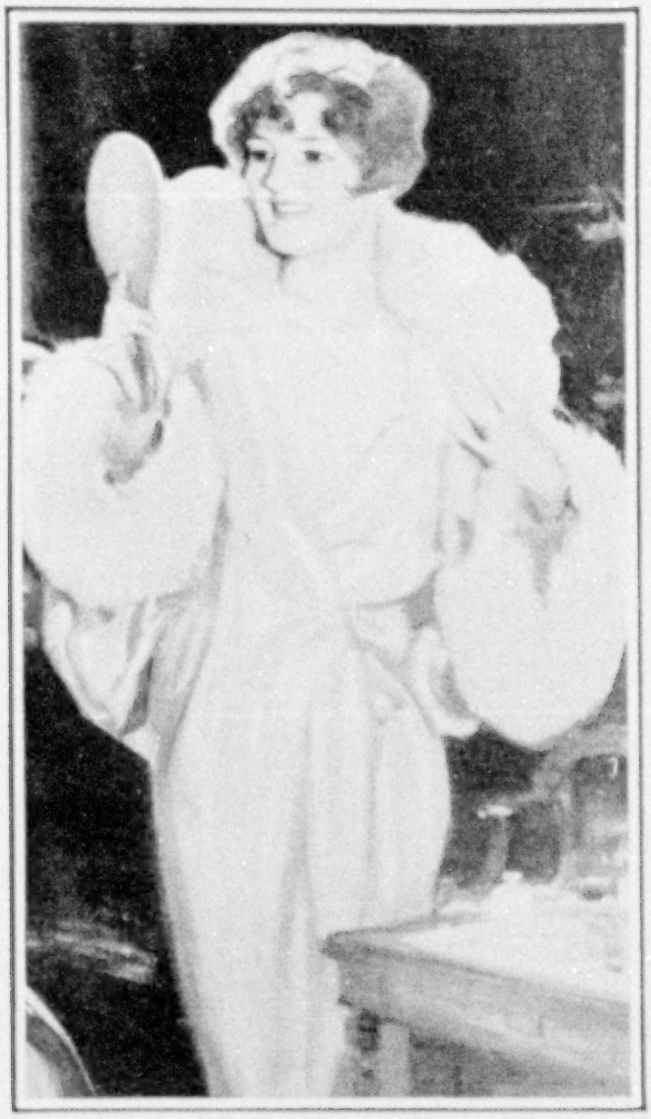

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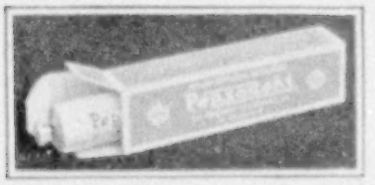

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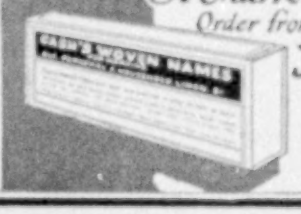

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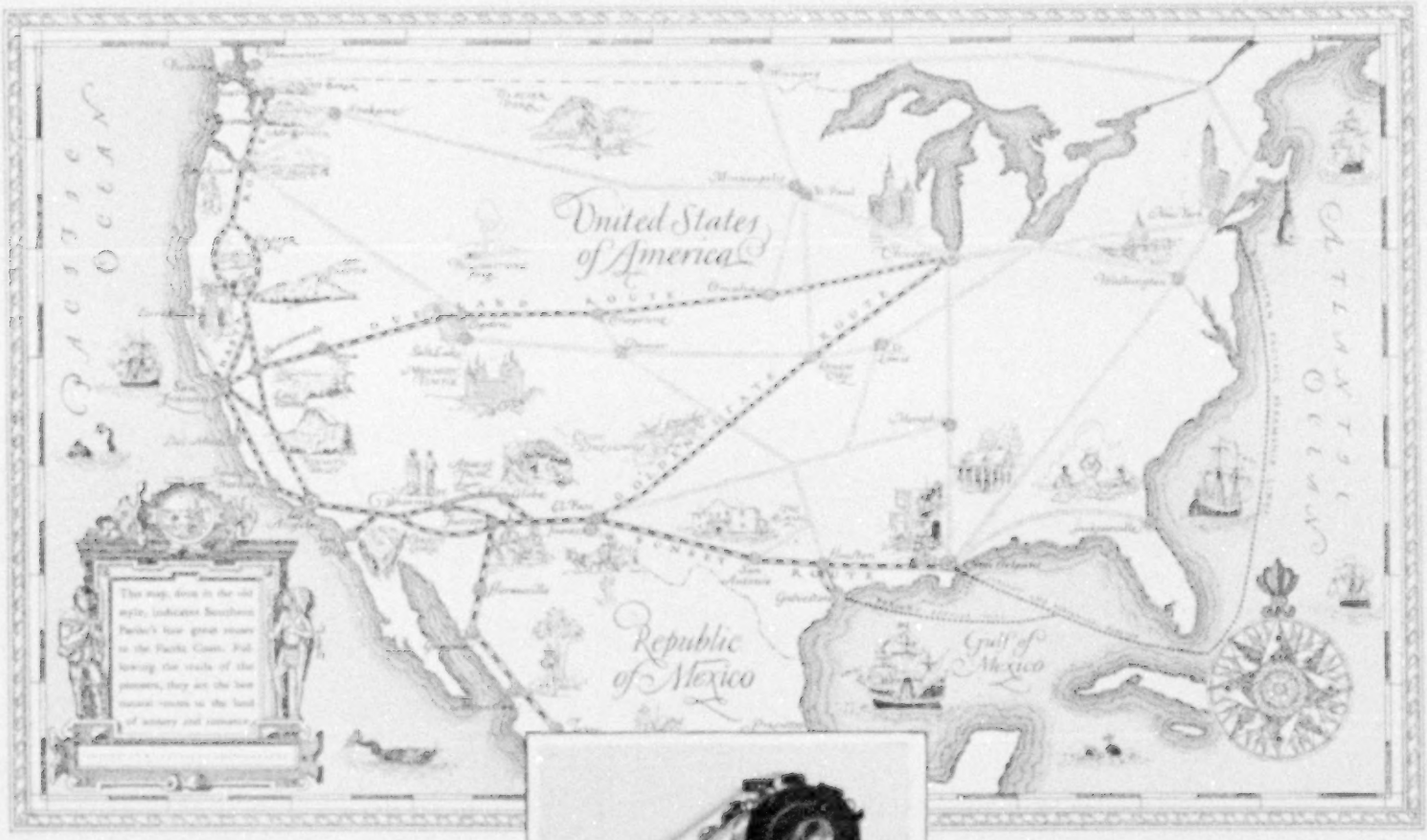

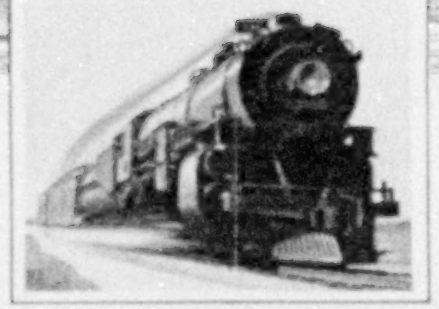

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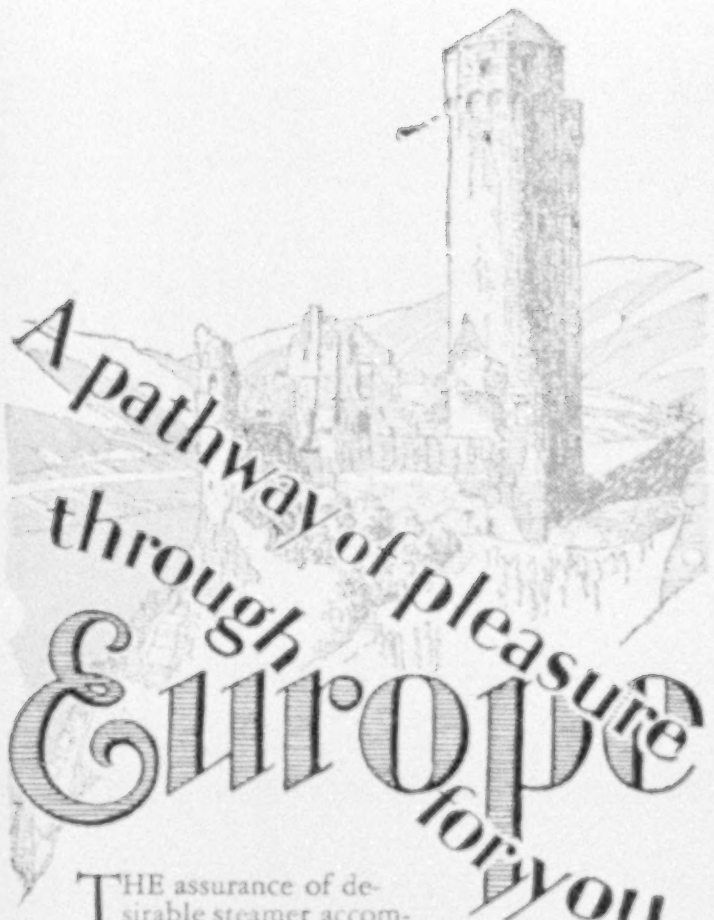

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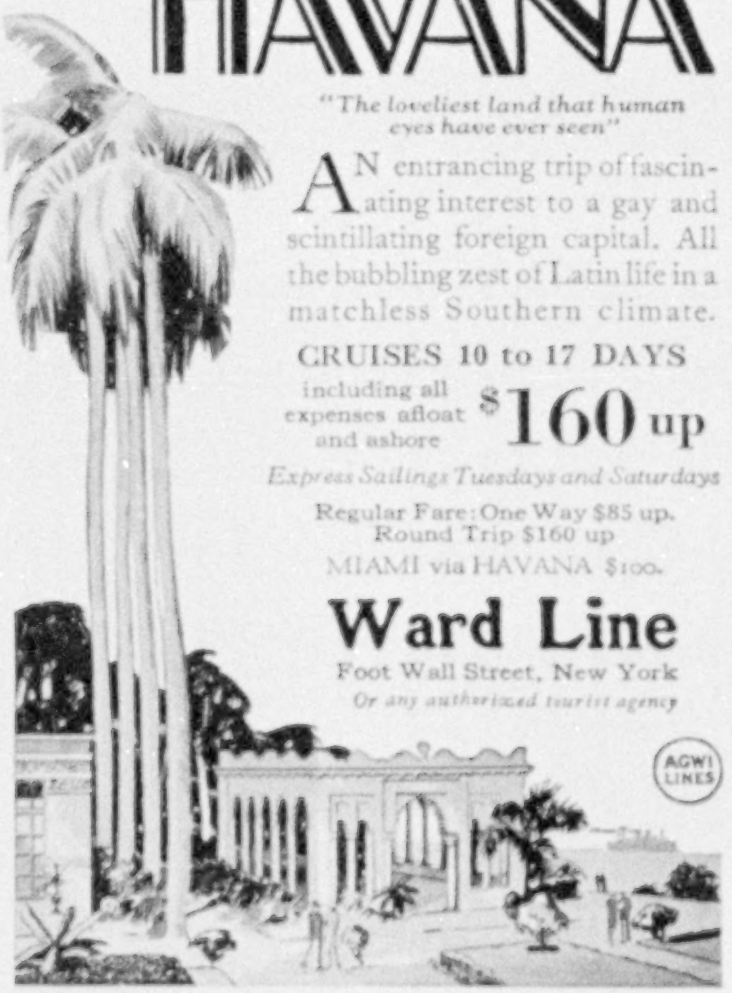

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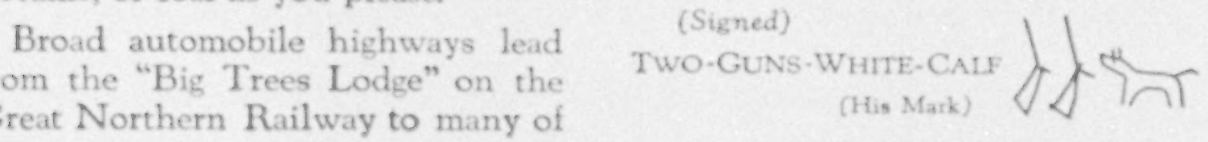

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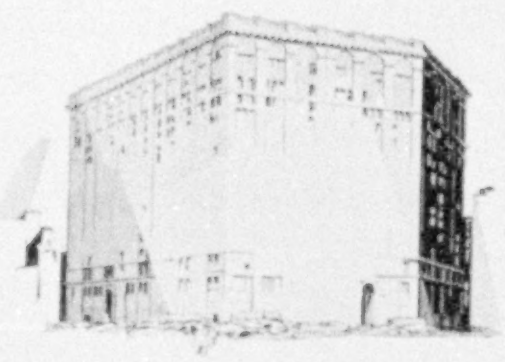

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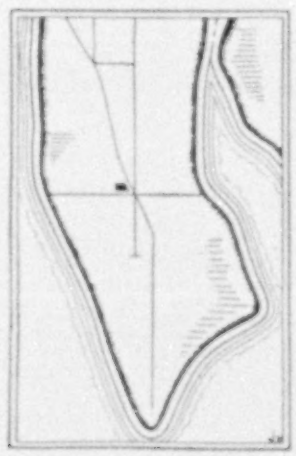

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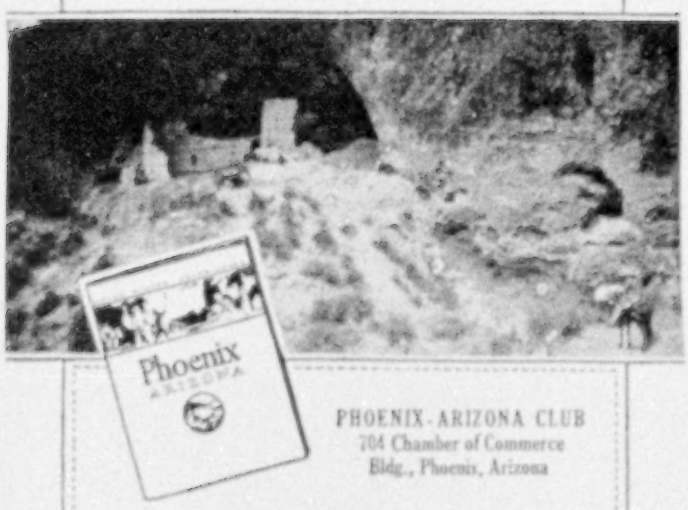

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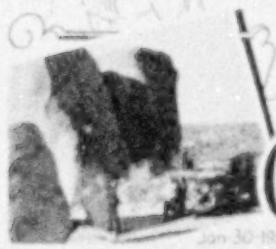

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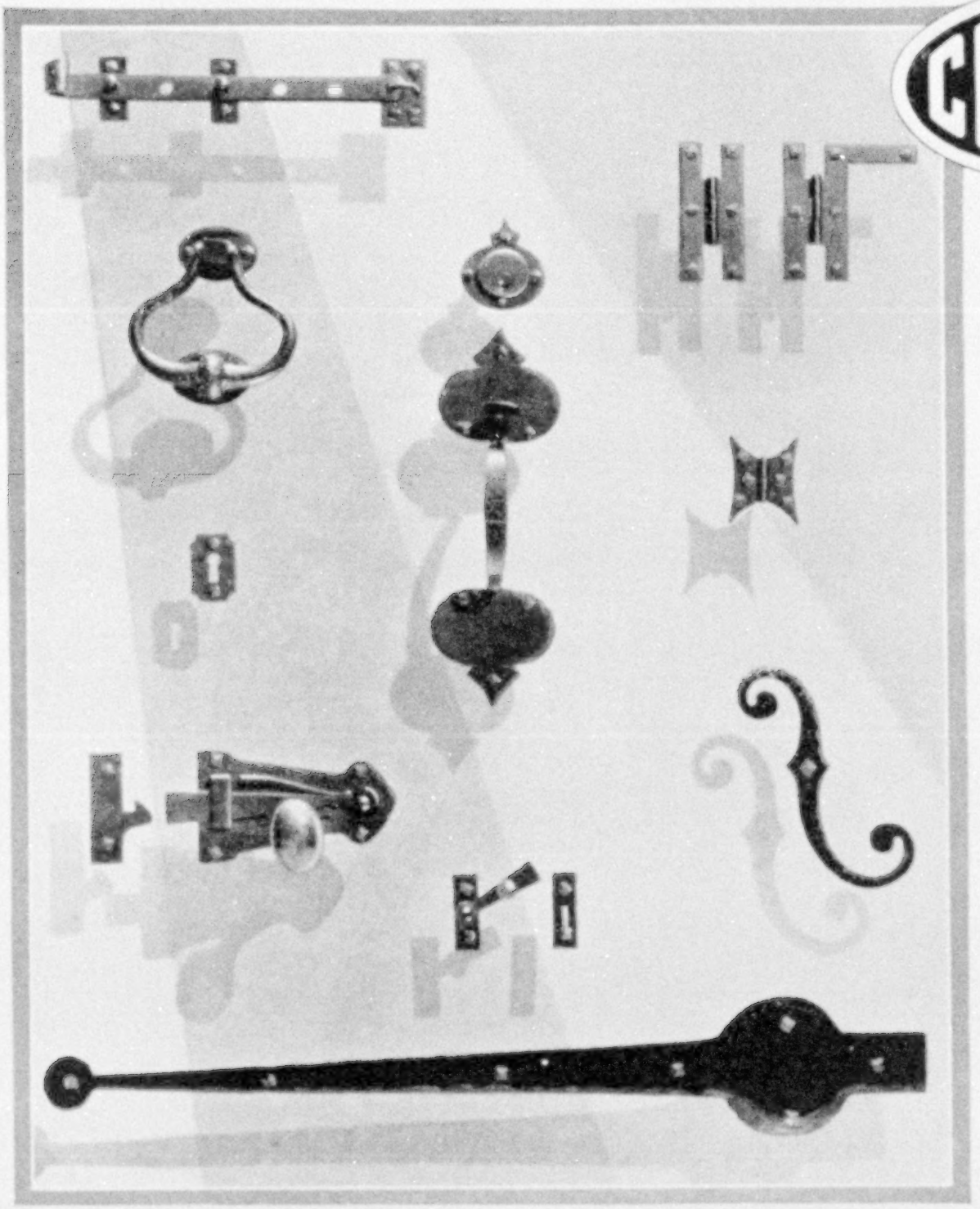

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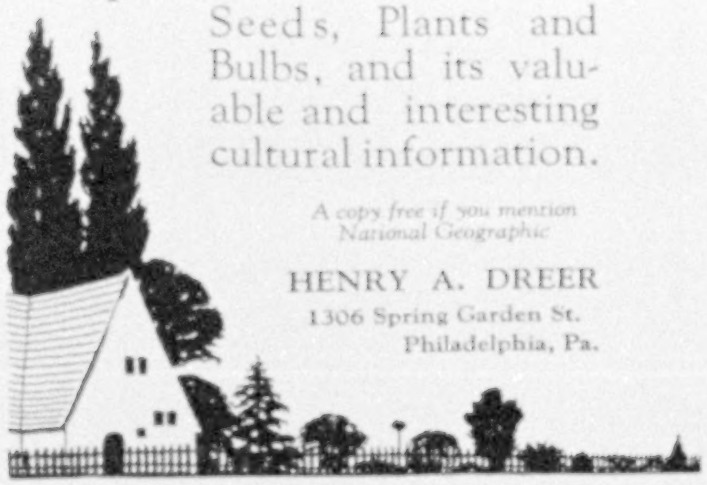

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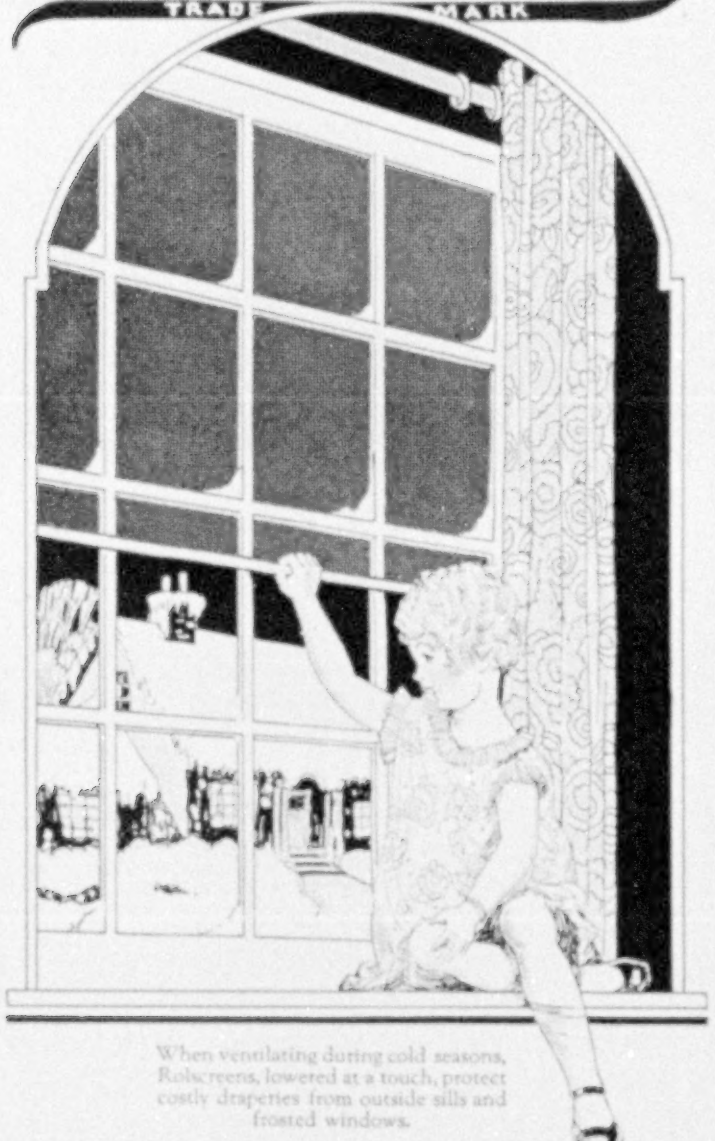

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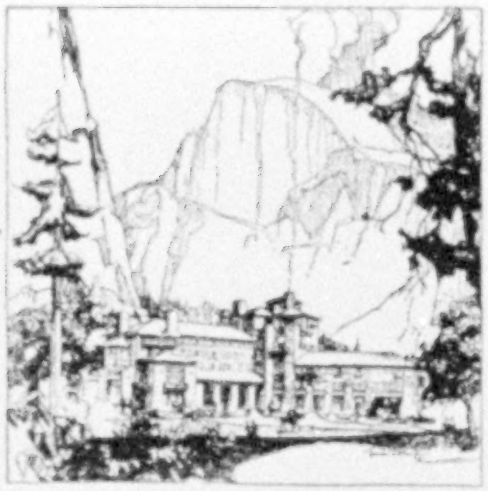

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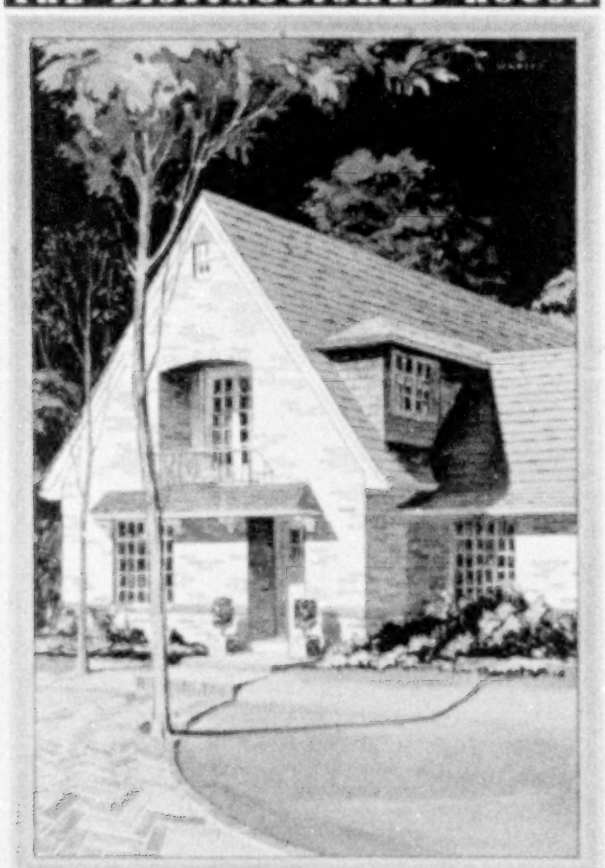

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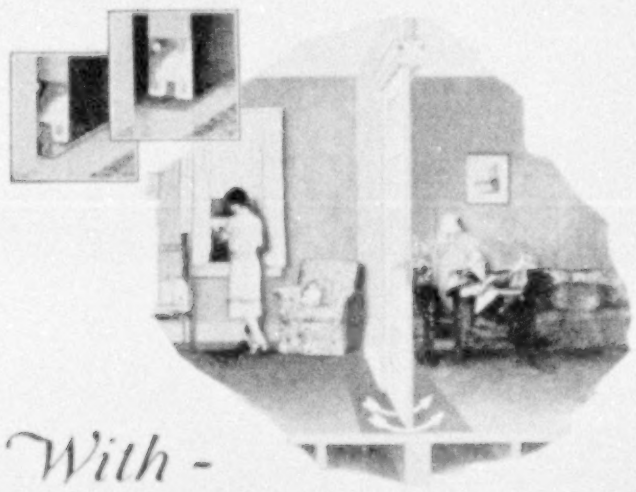

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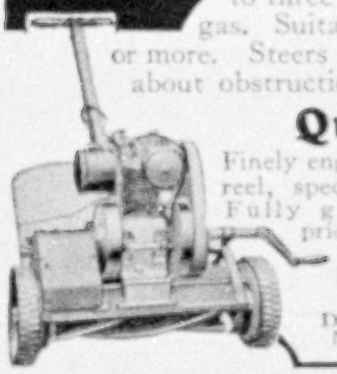

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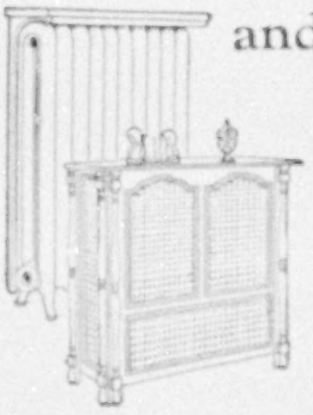

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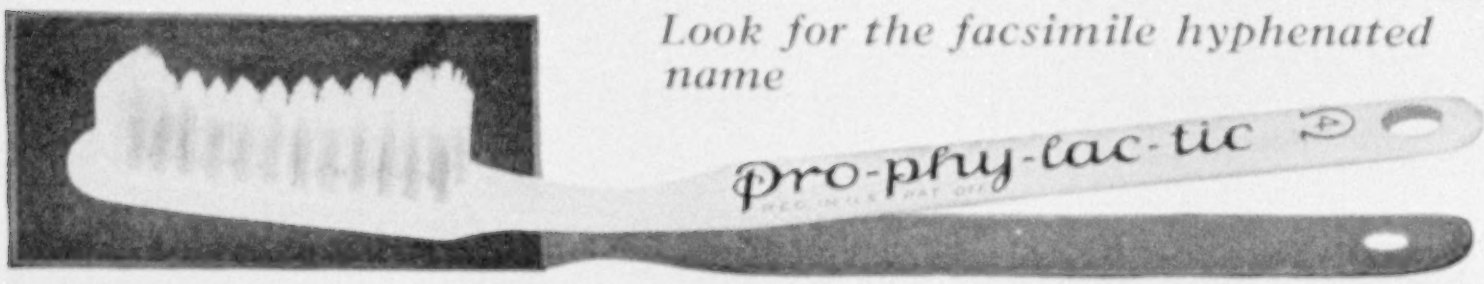

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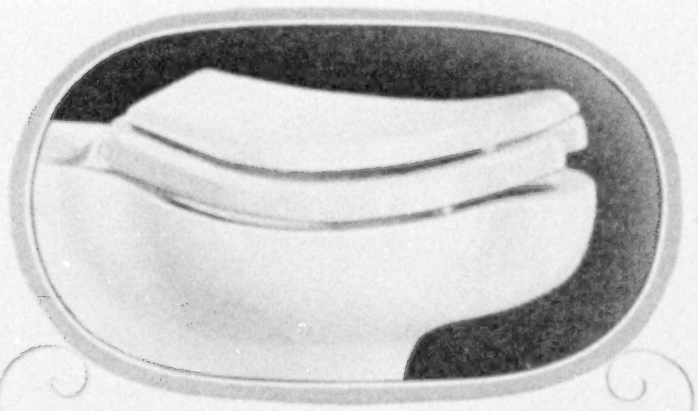

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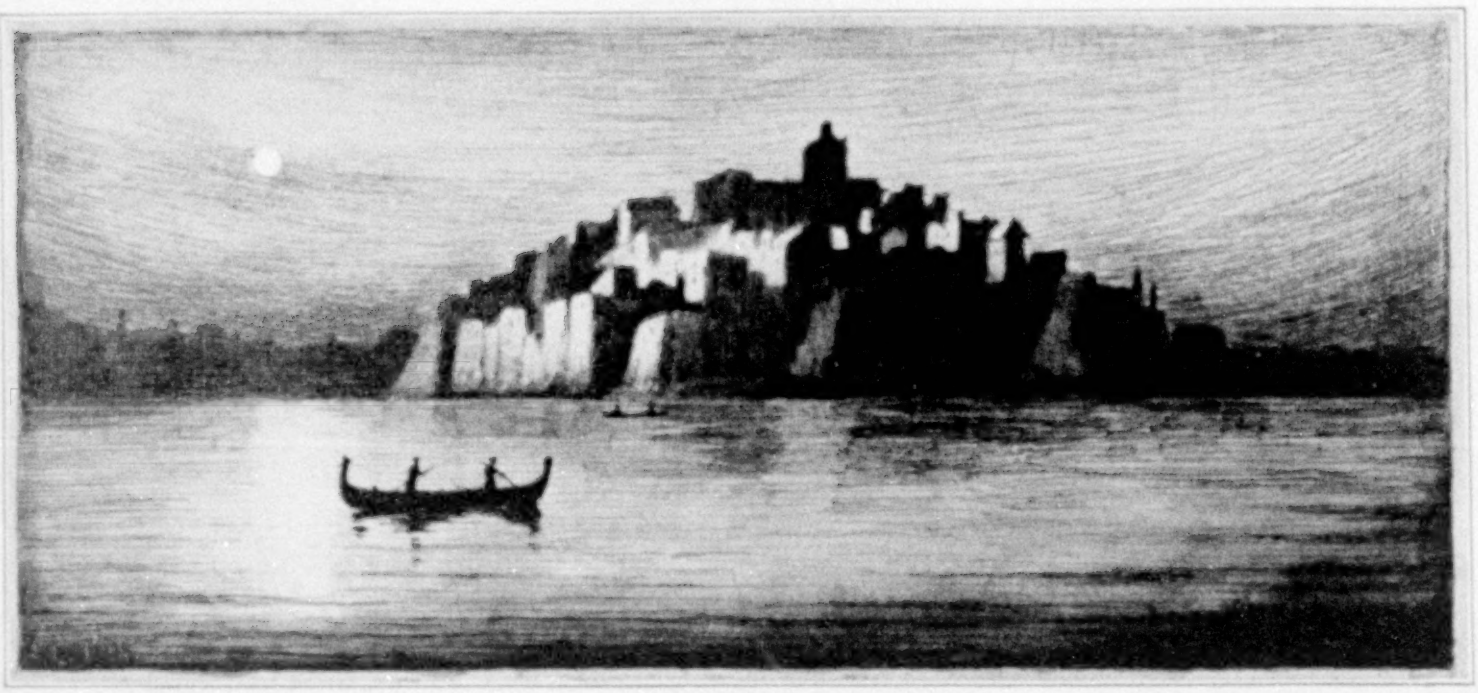

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